

# Kristen Hassmiller Lich

## PERSONAL

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Department of Health Policy and Management  
Gillings School of Global Public Health  
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## EDUCATION

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**Doctor of Philosophy, Health Services Organization and Policy, April 2007,**  
Department of Health Management and Policy, School of Public Health, University of Michigan.  
Dissertation: “The Impact of Smoking on Population-Level Tuberculosis Outcomes and Policy Implications.” Advisors: Kenneth Warner and David Mendez.

**Master of Health Services Administration, April 2000,**  
Department of Health Management and Policy, School of Public Health, University of Michigan.

**Bachelor of Science, Summa cum Laude, Psychology and Gerontology, December 1996,**  
University of Akron.

## PROFESSIONAL EXPERIENCE

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- 11/1/2017- present Associate Professor (with Tenure), Dept of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina at Chapel Hill
- 2/24/2017- 10/31/2017 Assistant Professor (Tenure Track), Dept of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina at Chapel Hill
- 12/1/2012-2/23/2017 Research Assistant Professor, Dept of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina at Chapel Hill  
\*Switched to research track position to prioritize innovative methodological research and practice, 3 young children, cancer diagnosis, and vision loss
- 1/1/2007-11/30/2012 Assistant Professor (Tenure Track), Dept of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina at Chapel Hill
- 7/1/2006-12/31/2006 Instructor with special provisions, Dept of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina at Chapel Hill
- 5/1/2003-4/30/2004 Research Assistant (Coordinator for On-Job/On-Campus Distance Learning) Department of Health Management and Policy, School of Public Health University of Michigan
- 9/1/2000-8/31/2002 Research Assistant (University of Michigan Tobacco Research Network) Department of Health Management and Policy, School of Public Health University of Michigan
- 5/1/2000-8/31/2000 Research Assistant (Supported research of Robert Wood Johnson Scholars) Department of Health Management and Policy, School of Public Health University of Michigan

## HONORS AND AWARDS

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### **Oxford University Global Map the System Competition**

Winning team at University of North Carolina; advanced to global competition and placed 3<sup>rd</sup> out of >3,500 teams competing, 2020.

### **Impact in Practice Award**

University of North Carolina at Chapel Hill, 2019.

**Robert H. DuRant Award for Statistical Rigor and Innovation in Adolescent Health Research** *Society for Adolescent Health and Medicine* for "The impact of acute relationship insults on trust and pro-relationship behavior within adolescent romantic relationships: A systems approach," 2017.

### **Inaugural 2015 Systems Science Scholarship**

AcademyHealth, 2015-2016.

### **Rackham Predoctoral Fellowship**

University of Michigan, 2004-2005.

### **Agency for Healthcare Research and Quality Traineeship**

University of Michigan, 2000-2001.

### **Oakwood Health System Scholarship (covered full tuition and expenses through MHA degree)**

University of Michigan, 1998-2000.

## MEMBERSHIPS

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2013-present National Maternal and Child Health Workforce Development Center Systems Integration Core Lead

2008-present American Public Health Association (APHA), Member

2007-present System Dynamics Society, Member

## BIBLIOGRAPHY

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NOTE: Student/post-doctoral trainees *italicized*, my authorship **bolded**.

SUMMARY: I have edited 1 book, written 7 book chapters, published 159 peer-reviewed journal articles, 1 peer-reviewed public commentary, and 4 papers presented and published in peer-reviewed conference proceedings. Overall, this includes 92 peer-reviewed publications with a prominent author contribution (58 senior-authored, 12 first-authored, and 22 second authored).

### **Books & Chapters** (Edited 1 book, 7 book chapters – 4 senior-authored, 2 first-authored)

1. Branscomb, J., Dills, J.E., Landers, G., Minyard, K.J., and **Hassmiller Lich, K.** Systems Thinking for Public Health Professionals. In: Fraser, M.R. and Castrucci, B.C., editors. Building Strategic Skills for Better Health: A primer for public health professionals. Oxford University Press. (2023). Pages 38-53.
2. Welter, C.R., Pinsker, E.C, and **Hassmiller Lich, K.** Articulate the Root Challenge. In: KY Risley, CR Welter, G Castillo, BC Castrucci, editors. Leading Systems Change in Public Health: A Field Guide for Practitioners. Springer Publishing Company. (2021). Pages 137-158.
3. Apostolopoulos, Y., **Hassmiller Lich, K.**, Lemke, M., editors. Complex Systems and Population Health: A primer. New York, NY: Oxford University Press. (2020)
4. **Hassmiller Lich, K.**, Kuhlberg, J. Engaging Stakeholders in Mapping and Modeling Complex Systems Structure to Inform Population Health Research and Action. In: Apostolopoulos, Y., Hassmiller Lich, K., Lemke, M., editors. Complex Systems and Population Health: A primer. New York, NY: Oxford University Press. (2020). Pages 119-133.

5. Hicklin, K., **Hassmiller Lich, K.** Mathematical Modeling in Population Health Research. In: Apostolopoulos, Y., Hassmiller Lich, K., Lemke, M., editors. Complex Systems and Population Health: A primer. New York, NY: Oxford University Press. (2020). Pages 157-170.
6. Fixsen, D.L., **Hassmiller Lich, K.**, Schultes, M. Shifting Systems of Care to Support School-Based Services. In: Leschied, A.W., Saklofske, D.H., Flett, G.L., editors. Handbook of School-Based Mental Health Promotion: An Evidence-Informed Framework for Implementation. Toronto: Springer. (2018). Pages 51-63.
7. **Hassmiller Lich, K.**, Minyard, K., Niles, R., Dave, G., *Gillen, E.* System Dynamics and Community Health. In: Burke, J.G., Albert, S., editors. Methods for Community Public Health Research: Integrated and Engaged Approaches. New York, NY: Springer Publishing Company. (2014). Pages 129-170.
8. Urban, J.B., Osgood, N.D., Okamoto, J., Mabry, P., **Hassmiller Lich, K.** Developmental Systems Science: Extending Developmental Science with Systems Science Methodologies. In: Molenaar, P., Lerner, R., Newell, K., editors. Handbook of Developmental Systems Theory and Methodology. New York, NY: The Guilford Press. (2014). Pages 95-130.

**Peer-Reviewed Publications** (159 total - 48 senior-authored, 11 first-authored, 25 second-authored)

2024

1. Hoban, H.G., Yip, T.A., Chau, J.C., Bensen, J.T., Desrosiers, L.R., Finnila, C.R., Hindorff, L.A., Kelly, N.R., Lynch, F.L., Rolf, B.A., Smith, H.S., Wasserstein, M.P., **Hassmiller Lich, K.** (2024). The motivation and process for developing a consortium-wide time and motion study to estimate resource implications of innovations in the use of genome sequencing to inform patient care. *Clinical and Translational Science*. 17(1):e13635. doi: 10.1111/cts.13635. PMID: 38064200.
2. Kenzie, E.S., Wakeland, W., Jetter, A., **Lich, K.H.**, Seater, M., Gunn, R., Davis, M.M. (2024). Protocol for an interview-based method for mapping mental models using causal-loop diagramming and realist interviewing. *Evaluation and Program Planning*. 103:102412. doi: 10.1016/j.evalprogplan.2024.102412. PMID: 38471326.
3. *Mills, S.D.*, Zhang, Y., Wiesen, C.A., **Hassmiller Lich, K.** (2024). Improving Prediction of Tobacco Use Over Time: Findings from Waves 1-4 of the Population Assessment of Tobacco and Health Study. *Nicotine and Tobacco Research*. 26(2):194-202. doi: 10.1093/ntr/ntad171. PMID: 37671638
4. *Smith, C.*, Cristello Sarteau, A., Qu, X., Noe, V., Young, L.A., **Hassmiller Lich, K.**, *Kahkoska, A.R.* (2024). A conceptual model of the continuous glucose monitoring integration process for older adults with diabetes developed using participatory systems science methods. *Diabetes Research and Clinical Practice*. 207:111053. doi: 10.1016/j.diabres.2023.111053. PMID: 38097112; PMCID: PMC10958737.
5. Cristello Sarteau, A., Muthukkumar, R., Smith, C., Busby-Whitehead, J, **Hassmiller Lich, K.**, Pratley, R.E., Thambuluru, S., Weinstein, J., Weinstock, R.S., Young, L.A., Kahkoska, A.R. (2024). Supporting the 'lived expertise' of older adults with type 1 diabetes: An applied focus group analysis to characterize barriers, facilitators, and strategies for self-management in a growing and understudied population. *Diabetic Medicine*. 41(1):e15156. doi: 10.1111/dme.15156. PMID: 37278610
6. Spencer, J.C., Spees, L.P., *Biddell, C.B.*, Odebunmi, O.O., Ilyasova, A.A., *Yanguela, J.*, **Lich, K.H.**, Mills, S.D., Higgins, C.R., Ozawa, S., Wheeler, S.B. (2024). Inclusion of marginalized populations in HPV vaccine modeling: A systematic review. *Preventive Medicine*. 182:107941. doi: 10.1016/j.ypmed.2024.107941. PMID: 38522627.

7. Johnson, K., Jensen, T., Cilenti, D., Wiesman, J., **Lich, K.H.** (2024). Investigating the role of local board of health governance on local health department policymaking behavior. *Journal of Public Health Management and Practice*. doi: 10.1097/PHH.0000000000001903. PMID: 38743404.

2023

8. **Hassmiller Lich, K.**, Mills, S.D., Kuo, T.M., Baggett, C.D., Wheeler, S.B.. (2023). Multi-level predictors of being up-to-date with colorectal cancer screening. *Cancer Causes and Control*. 34:187-198. doi: 10.1007/s10552-023-01723-w. PMID: 37285065
9. O'Leary, M.C., **Hassmiller Lich, K.**, Reuland, D.S., Brenner, A.T., Moore, A.A., Ratner, S., Birken, S.A., Wheeler, S.B. (2023). Optimizing process flow diagrams to guide implementation of a colorectal cancer screening intervention in new settings. *Cancer Causes and Control*. 34:89-98. doi: 10.1007/s10552-023-01769-w. PMID: 37731072
10. O'Leary, M.C., **Hassmiller Lich, K.**, Mayorga, M.E., Hicklin, K., Davis, M.M., Brenner, A.T., Reuland, D.S., Birken, S.A., Wheeler, S.B. (2023). Engaging stakeholders in the use of an interactive simulation tool to support decision-making about the implementation of colorectal cancer screening interventions. *Cancer Causes and Control*. 34:135-148. doi: 10.1007/s10552-023-01692-0. PMID: 37147411
11. Ferrari, R.M., Leeman, J., Brenner, A.T., Correa, S.Y., Malo, T.L., Moore, A.A., O'Leary, M.C., Randolph, C.M., Ratner, S., Frerichs, L., Farr, D., Crockett, S.D., Wheeler, S.B., **Hassmiller Lich, K.**, Beasley, E., Hogsed, M., Bland, A., Richardson, C., Newcomer, M., Reuland, D.S. (2023). Implementation strategies in the Exploration and Preparation phases of a colorectal cancer screening intervention in community health centers. *Implementation Science Communications*. 4(1):118. doi: 10.1186/s43058-023-00485-5. PMID: 37730659.
12. Smith, N.R., **Hassmiller Lich, K.**, Ng, S.W., Hall, M.G., Trogdon, J.G., Frerichs, L. (2023). Implementation costs of sugary drink policies in the United States. *Journal of Public Health Policy*. 44(4):566-587. doi: 10.1057/s41271-023-00435-4. PMID: 37714964.
13. Simon, J., Guynn, I., Thompson, M., Hambright, S., Jones, C., **Hassmiller Lich, K.** (2023). Strengthening the System Supporting Perinatal People with Substance Use Disorder in the Midwest Using Group Model Building. *Maternal and Child Health Journal*. 27:128-142. doi: 10.1007/s10995-023-03751-z. PMID: 37477728.
14. Smith, C., Fatima, H., McClain, E., Bryant, K., Verbiest, S., **Hassmiller Lich, K.** (2023). Supporting reproductive health among birthing persons with chronic conditions in the United States: A qualitative multilevel study using systems thinking to inform action. *Health Services Research*. 58(2):521-533. doi: 10.1111/1475-6773.14131. PMID: 36632673.
15. Kahkoska, A.R., Smith, C., Thambuluru, S., Weinstein, J., Batsis, J.A., Pratley, R., Weinstock, R.S., Young, L.A., **Hassmiller Lich, K.** (2023). "Nothing is linear": Characterizing the Determinants and Dynamics of CGM Use in Older Adults with Type 1 Diabetes. *Diabetes Research and Clinical Practice*. 196:110204. doi: 10.1016/j.diabres.2022.110204. PMID: 36509180.
16. Johnson, K., Biddell, C.B., Gora Combs, K., Wiesman, J., Valdes Lupi, M., **Hassmiller Lich, K.** (2023). Local Health Department values and organizational authorities guiding cross-sector work during COVID-19. *Health Promotion Practice*. 15248399231192989. doi: 10.1177/15248399231192989. PMID: 37649378

17. *Swiatlo, A., Curtis, S., Gottfredson, N., Halpern, C., Tumlinson, K., Hassmiller Lich, K.* (2023). Contraceptive Behavior Dynamics and Unintended Pregnancy: A Latent Transition Analysis. *Demography*. 60(4):1089-1113. doi: 10.1215/00703370-10877862. PMID: 37470801.
18. *Calancie, L., Leng, X.I., Whitsel, E.A., Cené, C., Hassmiller Lich, K., Dave, G., Corbie, G.* (2023). Racial disparities in stroke incidence in the Women's Health Initiative: Exploring biological, behavioral, psychosocial, and social risk factors. *SSM-Population Health*. 25:101570. doi: 10.1016/j.ssmph.2023.101570. PMID: 38313870
19. *Ravanbakht, S.N., Skinner, A.C., Armstrong, S., Weinberger, M., Hassmiller Lich, K., Frerichs, L.* Effects of caregiver-child acculturation on child obesity among US Latino individuals. *Obesity (Silver Spring, MD)*. 31(8): 2103-2109. doi: 10.1002/oby.23791. PMID: 37394865.
20. *Naumann, R.B., LaJeunesse, S., Keefe, E., Heiny, S., Hassmiller Lich, K., Jones, K., Evenson, K.R.* (2023). A Novel Vision Zero Leadership Training Model to Support Collaboration and Strategic Action Planning. *Frontiers in Future Transportation*. 4: 923786. doi: 10.3389/ffutr.2023.923786.
21. *Matson, P.A., Flessa, S.J., Hoff, A., Alinsky, R., Alexander, K., Hassmiller Lich, K., Johnson, R.M.* (2023). "What Do You Consider Use?" Perspectives of Black Youth on Cannabis Use. *The Journal of Adolescent Health*. 72(2):254-259. doi: 10.1016/j.jadohealth.2022.09.024. PMID: 36443160.
22. *Smith, H.S., Ferket, B.S., Gelb, B.D., Hindorff, L., Ferar, K.D., Norton, M.E., Sahin-Hodoglugil, N., Slavotinek, A., Hassmiller Lich, K., Berg, J.S., Russell, H.V.* (2023). Parent-Reported Clinical Utility of Pediatric Genomic Sequencing. *Pediatrics*. 152(2):e2022060318. doi: 10.1542/peds.2022-060318. PMID: 37470118.
23. *Waltz, M., Canter, C., Bensen, J.T., Berg, J.S., Foreman, A.K.M., Grant, T.L., Hassmiller Lich, K., Navas, A., O'Daniel, J.M., Powell, B.C., Rini, C.M., Staley, B.S., Cadigan, R.J.* (2023). The Burden of COVID-19 on Caregivers of Children with Suspected Genetic Conditions: A Therapeutic Odyssey. *Physical and Occupational Therapy in Pediatrics*. 43(3): 257-271. doi: 10.1080/01942638.2022.2138734. PMID: 36310386.

2022

24. *Cox, M., Brown Urban, J., Hassmiller Lich, K., Wells, R., Lawrence, C.N., Kwaja, N.* (2022). A multi-stakeholder perspective on factors affecting successful transition to adulthood for youth with severe emotional disturbances. *Child and Adolescent Social Work Journal*. 2022 Nov 15:1-19. doi: 10.1007/s10560-022-00898-6. PMID: 36407677.
25. *Nadem, E., McNamee, E., Lang, J.M., Perry, D., Hassmiller Lich, K.* (2022). Novel application of system support mapping for sustainment of trauma-focused mental health intervention in school-based health centers: A case study. *Evidence-Based Practice in Child and Adolescent Mental Health*. doi: 10.1080/23794925.2022.2056928.
26. *Smith, N.R., Knocke, K.E., Hassmiller Lich, K.* (2022). Using decision analysis to support implementation planning in research and practice. *Implementation Science Communications*. 3(1):83. doi: 10.1186/s43058-022-00330-1. PMID: 35907894.
27. *Smith, N.R., Mazzucca, S., Hall, M.G., Hassmiller Lich, K., Brownson, R.C., Frerichs, L.* (2022). Opportunities to improve policy dissemination by tailoring communication materials to the research priorities of legislators. *Implementation Science Communications*. 3(1):24. doi: 10.1186/s43058-022-00274-6.

28. O'Leary, M.C., **Hassmiller Lich, K.**, Frerichs, L., Leeman, J., Reuland, D.S., Wheeler, S.B. (2022). Extending analytic methods for economic evaluation in implementation science. *Implementation Science*.17(1):27. doi: 10.1186/s13012-022-01192-w. PMID: 35428260.
29. Kahkoska, A.R., Freeman, N.L.B., **Hassmiller Lich, K.** (2022). Systems-Aligned Precision Medicine-Building an Evidence Base for Individuals Within Complex Systems. *JAMA Health Forum*. 3(7):e222334. doi: 10.1001/jamahealthforum.2022.2334. PMID: 36219007.
30. Kahkoska, A.R., **Hassmiller Lich, K.**, Kosorok, M.R. (2022). Focusing on optimality for the translation of precision medicine. *Journal of Clinical and Translational Science*. 6(1):e118. doi: 10.1017/cts.2022.438. PMID: 36285014.
31. Johnson, K., Biddell, C.B., Hecht, H.K., **Hassmiller Lich, K.**, Swann, J., Delamater, P., Mayorga, M., Ivy, J., Smith, R.L., Patel, M.D. (2022). Organizational decision-making during COVID-19: A qualitative analysis of the organizational decision-making system in the United States during COVID-19. *Journal of Contingencies and Crisis Management*. 31(2): 259-272. doi: 10.1111/1468-5973.12437.
32. Biddell, C.B., Johnson, K.T., Patel, M.D., Smith, R.L., Hecht, H.K., Swann, J.L., Mayorga, M.E., **Hassmiller Lich, K.** (2022). Cross-sector decision landscape in response to COVID-19: A qualitative network mapping analysis of North Carolina decision-makers. *Frontiers Public Health*.10:906602. doi: 10.3389/fpubh.2022.906602. PMID: 36052008.
33. Johnson, K., Biddell, C.B., **Hassmiller Lich, K.**, Swann, J., Delamater, P., Mayorga, M., Ivy, J., Smith, R.L., Patel, M.D. (2022). Use of Modeling to Inform Decision Making in North Carolina during the COVID-19 Pandemic: A Qualitative Study. *MDM Policy & Practice*. 7(2):23814683221116362. doi: 10.1177/23814683221116362. PMID: 35923388
34. Zhang, Y., Mayorga, M.E., Ivy, J., **Hassmiller Lich, K.**, Swann, J.L. (2022). Modeling the Impact of Nonpharmaceutical Interventions on COVID-19 Transmission in K-12 Schools. *MDM Policy & Practice*. 7(2):23814683221140866. doi: 10.1177/23814683221140866. PMID: 36479414.
35. Rosenstrom, E., Mele, J., Ivy, J.S., Mayorga, M.E., Patel, M., **Hassmiller Lich, K.**, Johnson, K., Delamater, P., Keskinocak, P., Boyce, R., Smith, R., Swann, J.L. (2022). Can Vaccine Prioritization Reduce Disparities in Covid-19 Burden for Historically Marginalized Populations? *PNAS Nexus*. 1(1):pgab004. doi: 10.1093/pnasnexus/pgab004. PMID: 36712803
36. Rosenstrom, E.T., Mele, J., Ivy, J.S., Mayorga, M.E., Patel, M.D., **Hassmiller Lich, K.**, Delamater, P.L., Smith, R.L. 3rd, Swann, J.L. (2022). Vaccinating children against COVID-19 is crucial to protect schools and communities. *PNAS Nexus*. 1(3):pgac081. doi: 10.1093/pnasnexus/pgac081. PMID: 35873793.
37. Townsley, R.M., Koutouan, P., Mayorga, M.E., Mills, S.D., Davis, M.D., **Hassmiller Lich, K.** (2022). When history and heterogeneity matter--a tutorial: The impact of Markov model specifications on long-term outcomes in the context of colorectal cancer screening. *Medical Decision Making*. 42(7):845-860. doi: 10.1177/0272989X221097386. PMID: 35543440.
38. Guynn, I., Simon, J., Anderson, S., Klamann, S.L., Mullenix, A., Cilenti, D., **Hassmiller Lich, K.** (2022). Tools for Supporting the MCH Workforce in Addressing Complex Challenges: A Scoping Review of System Dynamics Modeling in Maternal and Child Health. *Maternal and Child Health Journal*. 26 (Supp 1): 176-203. doi: 10.1007/s10995-022-03376-8.

39. Dills, J.E., Lawson, T.M., Branscomb, J., Mullenix, A., **Hassmiller Lich, K.** (2022). Health Impact Assessment: A Missed Opportunity for MCH Professionals in Their Quest to Address the Social Determinants of Health. *Maternal Child Health Journal*. 26(Suppl 1): 88-113. doi: 10.1007/s10995-021-03350-w. PMID: 35072867.
40. Wells, R., *Coffey, A.M.*, Mullenix, A., Simon, J., **Hassmiller Lich, K.** (2022). Insights from the national maternal and Child Health Workforce Development Center on Title V Teams' collaborative readiness and goal accomplishment. *Maternal and Child Health Journal*. 26(Suppl 1): 169-175. doi: 10.1007/s10995-022-03437-y. PMID: 35474039.
41. *Calancie, L.*, Batdorf-Barnes, A., Verbiest, S., White, N., **Hassmiller Lich, K.**, Corbie, G., Mullenix, A., Cilenti, D. (2022). Practical Approaches for Promoting Health Equity in Communities. *Maternal and Child Health Journal*. 26(Suppl 1):82-87. doi: 10.1007/s10995-022-03456-9. PMID: 35920955.
42. *Coffey, AM.*, Powis, L., Mullenix, A., Rivero, V., Evans, S., Fatima, H., Fleming, W.O., **Hassmiller Lich, K.**, Orton, S., Cilenti, D., Margolis, L. (2022). Enhancing Title V Workforce Capacity to Address Complex Challenges: Impact of the National Maternal and Child Health Workforce Development Center. *Maternal Child and Health Journal*. 26(Suppl 1): 51-59. doi: 10.1007/s10995-022-03430-5. PMID: 35612773.
43. Umble, K.E., Powis, L., *Coffey, A.M.*, Margolis, L., Mullenix, A., *Fatima, H.*, Orton, S., Fleming, W.O., **Hassmiller Lich, K.**, Cilenti, D. (2022). Developing State Leadership in Maternal and Child Health: Process Evaluation Findings from a Work-Based Learning Model for Leadership Development. *Maternal and Child Health Journal*. 26(Suppl 1): 156-168. doi: 10.1007/s10995-022-03444-z. PMID: 35488949.
44. Ferket, B.S., Baldwin, Z., Murali, P., Pai, A., Mittendorf, K.F., Russell, H.V., Chen, F., Lynch, F.L., **Hassmiller Lich, K.**, Hindorff, L.A., Savich, R., Slavotinek, A., Smith, H.S., Gelb, B.D., Veenstra, D.L. (2022). Cost-effectiveness frameworks for comparing genome and exome sequencing versus conventional diagnostic pathways: A scoping review and recommended methods. *Genetics in Medicine*. 24(10): 2014-2027. doi: 10.1016/j.gim.2022.06.004. PMID: 35833928.
45. *Johnson, K.*, *Saylor, K.W.*, *Guynn, I.*, *Hicklin, K.*, Berg, J.S., **Hassmiller Lich, K.** (2022). A systematic review of the methodological quality of economic evaluations in genetic screening and testing for monogenic disorders. *Genetics in Medicine*. 24(2):262-288. doi: 10.1016/j.gim.2021.10.008. PMID: 34906467.
46. Spees, L.P., Hicklin, K., Adams, M.C., Farnan, L., Bensen, J.T., Gilleskie, D.B., Berg, J.S., Powell, B.C., **Lich, K.H.** (2022). Testing and extending strategies for identifying genetic disease-related encounters in pediatric patients. *Genetics in Medicine*. 24(4):831-838. doi: 10.1016/j.gim.2021.12.001. PMID: 35034852.
47. Malo, T.L., Correa, S.Y., Moore, A.A., Ferrari, R.M., Leeman, J., Brenner, A.T., Wheeler, S.B., Tan, X., Reuland, D.S., & Scaling Colorectal Cancer Screening Through Outreach, Referral, and Engagement (SCORE) Study Protocol Consortium (consortium members include **Hassmiller Lich, K.**) (2022). Centralized colorectal cancer screening outreach and patient navigation for vulnerable populations in North Carolina: study protocol for the SCORE randomized controlled trial. *Implementation Science Communications*. 2(1):113. doi: 10.1186/s43058-021-00194-x. PMID: 34620250.
48. *Hicklin, K.*, *O'Leary, M.C.*, *Nambiar, S.*, Mayorga, M.E., Wheeler, S.B., Davis, M.M., Richardson, L.C., Tangka, F.K.L., **Lich, K.H.** (2022). Assessing the impact of multicomponent interventions on colorectal

- cancer screening through simulation: What would it take to reach national screening targets in North Carolina? *Preventative Medicine*. 162:107126. doi: 10.1016/j.ypmed.2022.107126. PMID: 35787844.
49. Naumann, R.B., Guynn, I., Clare, H.M., **Lich, K.H.** (2022). Insights from system dynamics applications in addiction research: A scoping review. *Drug and Alcohol Dependence*. 231:109237. doi: 10.1016/j.drugalcdep.2021.109237. PMID: 34974268.
50. Stafford, C., Marrero, W.J., Naumann, R.B., **Lich, K.H.**, Wakeman, S., Jalali, M.S. (2022). Identifying key risk factors for premature discontinuation of opioid use disorder treatment in the United States: A predictive modeling study. *Drug and Alcohol Dependence*. 237:109507. doi: 10.1016/j.drugalcdep.2022.109507. PMID: 35660221.
51. Beaulieu, E., Naumann, R.B., Deveaux, G., Wang, L., Stringfellow, E.J., **Hassmiller Lich, K.**, Jalali, M.S. (2022). Impacts of alcohol and opioid polysubstance use on road safety: Systematic review. *Accident Analysis and Prevention*. 173:106713. doi: 10.1016/j.aap.2022.106713. PMID: 35640366
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### **Refereed Other Products of Scholarship**

#### **Peer-reviewed public comments on federal regulations** (1 public comment)

1. *Mills, S. D.*, Golden, S. D., Kong, A. Y., **Hassmiller Lich, K.**, Elliot, A. M., & Ribisl, K. M. (2020). Menthol Cigarettes Should be Banned in the United States to Improve the Public's Health. Comment for Citizen Petition, Federal Register Docket No. FDA-2013-P-0435-0001. December 1, 2020.

#### **Peer-reviewed solicited reports** (1 peer reviewed report chapter)

1. American Psychiatric Association Task Force Report (2022). "The Psychiatric Bed Crisis in the U.S.: Understanding the problem and moving toward solutions" (I was lead author on Section 6, "Creating models for estimating the number of needed psychiatric beds")  
<https://www.psychiatry.org/psychiatrists/research/psychiatric-bed-crisis-report>

**Peer-reviewed published conference proceedings** (4 peer-reviewed papers published and presented, 3 senior-authored)

1. *Koutouan, P. (presenter), Mayorga, M., O'Leary, M., Hassmiller Lich, K.* (2021) Creating Simulated Equivalents to Project Long-Term Population Health Outcomes of Underserved Patients: An Application to Colorectal Cancer Screening. Accepted to the Proceedings of the 2021 Winter Simulation Conference.
2. *Nambiar, S. (presenter), Mayorga, M., O'Leary, M., Hassmiller Lich, K., Wheeler, S.B.* (2018) A Simulation Model to Assess the Impact of Insurance Expansion on Colorectal Cancer Screening at the Population Level. Proceedings of the Winter Simulation Conference.
3. *Cornejo, D. (presenter), Mayorga, M., Hassmiller Lich, K.* (2014) Creating Common Patients and Evaluating Individual Results: Issues in Individual Simulation for Health Policy Analysis. *Proceedings of the Winter Simulation Conference*, Savannah, GA.
4. *Cornejo, D. (presenter), Mayorga, M., Hassmiller Lich, K.* (2014) Improving Outcomes via Better Choices: Applications in Colorectal Cancer Screening." *Industrial and Systems Engineering Research Conference Proceedings*, Montreal, Canada.

### **Refereed Unpublished Oral Presentations**

1. *Thomas, S., Hassmiller Lich, K., Simon, J., Fatima, H., Hogan, V.* (2024 June). Insights to Action: Co-creating a comprehensive map for advancing maternal and child health Equity. Oral presentation at the March of Dimes Mom and Baby Action Network (M-BAN) Summit, Chicago, IL.
2. *Hassmiller Lich, K., Dalack, G., Fine, J.D., Pinals, D.* (2024 May). Using System Dynamic Modeling to Understand and Optimize Psychiatric Treatment Systems. Oral presentation at the American Psychiatric Association (APA) Annual Meeting, New York, NY.
3. *Simon, J., Fatima, H. Clawson, T., Thomas, S., Hogan, V., Hassmiller Lich, K.* (2024 April). Systems Insights to Local Action: Creating & Applying the Birth Equity Action Map. Oral skill-building session at the Association for Maternal and Child Health Programs Annual Conference, Oakland, CA.
4. *Mayorga, M.E., O'Leary, M.C., Hassmiller Lich, K., Koutouan, P.R.* (2023 July). Testing screening scenarios to guide program planning for the Colorectal Cancer Control Program. Oral presentation at INFORMS Healthcare Conference 2023, Toronto, ON Canada.
5. *Yanguela, J., O'Leary, M.C., Kim, D., Biddell, C.B., Johnson, K.T., Hassmiller Lich, K.* (2023 June). The role of theory in informing decision-making in complex environments: a critical review with a case application to COVID-19. Poster presentation at the Academy Health 2023 Annual Research Meeting, Seattle, WA.
6. *Mullenix, A.J., Fleming, W.O., Orton, S., Hassmiller Lich, K.* (2023 May). Practical tools for advancing equity. Oral skill-building session at the Association for Maternal and Child Health Programs Annual Conference, New Orleans, LA.
7. *Simon, J. and Hassmiller Lich, K.* (2023 May). Participatory systems mapping to strengthen and re-imagine a thriving MCH workforce. Oral skill-building session at the Association for Maternal and Child Health Programs Annual Conference, New Orleans, LA.
8. *Clare, H.M., Waltz, M., Berg, J., Adams, M., Kahkoska, A., Hassmiller Lich, K.* (2023 March). Characterizing research on the diagnostic odyssey in the United States: A systematic mapping review. Poster presentation at American College of Medical Genetics and Genomics, Salt Lake City, UT.

9. Ferrari, R.M., Leeman, J., Brenner, A.T., Correa, S.Y., Malo, T., Moore, A.A., O'Leary, M., Randolph, C.M., Ratner, S., Frerichs, L., Farr, D., Crockett, S.D., Rohweder, C.L., Wheeler, S.B., **Lich, K.H.**, Reuland DS. (2022 December). Using EPIS to guide development of a multilevel CRC screening intervention in diverse community health center settings. Poster presentation at the Annual Conference on the Science of Dissemination and Implementation; Washington DC.
10. Hicklin, K., O'Leary, M., Nambiar, S., Mayorga, M.E., Wheeler, S.B., Davis, M., Richardson, L.C., Tangka, F.K.L., **Lich, K.H.** (2022 November). Data-driven approaches to improve health care quality/assessing the impact of multicomponent interventions on colorectal cancer screening in North Carolina. University of Michigan Industrial and Operations Engineering Seminar Series.
11. O'Leary, M.C., Johnson, K.T., **Hassmiller Lich, K.**, Moore, A.A., Brenner, A.T., Reuland, D.S., Ferrari, R.M., Farr, D.E., Wheeler, S.B. (2022 October). A novel cost analysis of the implementation of a complex colorectal cancer screening program. Poster presentation at the Society for Medical Decision Making Annual North American Meeting; Virtual.
12. Johnson, K.T., Biddell, C.B., Gora Combs, K., Weisman, J., Valdes Lupi, M., **Hassmiller Lich, K.** (2022 July). Local Health Department Values and Organizational Authorities Guiding Public Health System Strengthening during COVID-19. Oral presentation at NACCHO 360, Atlanta, GA.
13. **Hassmiller Lich, K.**, Smith, R.L., La, E. (2022 June). Using system dynamics modeling to strengthen acute mental health crisis systems. Oral presentation at the 2022 CORS/INFORMS International Conference, Vancouver, CA.
14. Mayorga, M.E., Koutouan, P., O'Leary, M.C., **Hassmiller Lich, K.** (2022 June). Simulating the long-term health impact of first-time colorectal cancer screenings provided through the Colorectal Cancer Control Program (CRCCP). Oral presentation at the 2022 CORS/INFORMS International Conference, Vancouver, CA.
15. Johnson, K., O'Leary, M., Wheeler, S. B., Moore, A., Brenner, A., Reuland, D., **Hassmiller Lich K.** (2021 December). Multiple methods for estimating resources utilized during intervention implementation: example of a colorectal cancer screening outreach program. Poster presentation at the Annual Conference on the Science of Dissemination and Implementation.
16. Koutouan, P., O'Leary, M.C., **Hassmiller Lich, K.**, Mayorga, M.E. (2021 December). Creating simulated equivalents to project long-term population health outcomes of underserved patients: an application to colorectal cancer screening. Oral presentation at the Winter Simulation Conference, Phoenix, AZ.
17. Biddell, C., Johnson, K., Patel, M., Swann, J., **Hassmiller Lich, K.** (2021 September). Bringing Communities to the Table: The Translation of State Guidance into Local Decision-Making during COVID-19. Oral presentation at the State-University Partnership Learning Network Adjunct Meeting "Research and Relevance in State Health Policy."
18. Johnson, K., Biddell, C., Patel, M., Swann, J., **Hassmiller Lich, K.** (2021 September). Co-design of Decision-Support Model Analysis and Communication with Local Public Health Decision Makers during COVID-19. Oral presentation at the State-University Partnership Learning Network Adjunct Meeting "Research and Relevance in State Health Policy".
19. **Hassmiller Lich, K.**, Mills, S., Golden, S., O'Leary, M., Logan, P. (2021 July). Using Causal Loop Diagramming to Elucidate Connections Between Individual, Environmental, and Structural Causes of

- Racial and Socioeconomic Disparities in Smoking. Oral presentation for INFORMS Healthcare Conference. Virtual Meeting.
20. *Mills, S., Hao, Y., Ribisl, K., Wiesen, C., Hassmiller Lich, K.* (2021 July). The Relationship Between Menthol Cigarette Use and Smoking Cessation: Findings from Waves 1 To 4 of the Population Assessment of Tobacco and Health Study. Oral presentation at INFORMS Healthcare Conference. Virtual Meeting.
  21. *Miele, J., Rosenstrom, E., Colberg, N., Ivy, J., Mayorga, M., ..., Hassmiller Lich, K.* (2021 July). Optimization of Scarce Vaccine during the COVID-19 Pandemic. INFORMS Healthcare Conference. Virtual Meeting.
  22. *Hicklin, K., O’Leary, M., Nambiar, S., Mayorga, M., Wheeler, S., Davis, M., Hassmiller Lich, K.* (2021 July). What Would it Take to Reach National Screening Targets for Colorectal Cancer Screening--A Simulation Study. INFORMS Healthcare Conference. Virtual Meeting.
  23. *Smith, R., Hassmiller Lich, K., La, E.* (2021 July). Leveraging SD to study and strengthen acute crisis mental health service systems as systems. Oral presentation at the International System Dynamics Conference. Virtual Meeting.
  24. *Estrada, W., Sabounchi, N., Hassmiller Lich, K., Sonmez, S., Apostolopoulos, Y.* (2021 July). Delineating Hispanic immigrant lodging workers’ allostatic load dynamics through systems modeling. Oral presentation at the International System Dynamics Conference. Virtual Meeting.
  25. *Mills, S. D., Hao, Y., Ribisl, K. M., Wiesen, C. A., & Hassmiller Lich, K.* (2021 February). The relationship between menthol cigarette use, cessation and relapse: Findings from Waves 1 to 4 of the Population Assessment of Tobacco and Health Study. Oral presentation at the virtual meeting of the Society of Research on Nicotine and Tobacco.
  26. *Mills, S. D., Golden, S. D., Logan, P., O’Leary, M. C., & Hassmiller Lich, K.* (2021 February). Using systems science to advance health equity in tobacco control: A causal loop diagram of smoking among racial/ethnic minority and lower-income smokers. Oral presentation at the virtual meeting of the Society of Research on Nicotine and Tobacco.
  27. *Koutuan, P., Townsley, R., Mills, S. D., Mayorga, M., & Hassmiller Lich, K.* (2020 October). The impact of modeling colorectal cancer screening choices using Markov chains. Oral presentation at the annual INFORMS meeting. Virtual Meeting.
  28. *Logan, P., O’Leary, M.C., Golden, S.D., Hassmiller Lich, K., Mills, S.D.* (2020 June) Using systems science to advance health equity in tobacco control. Presented at the University of Oxford Map the System Virtual Global Final, Oxford, UK. Finals were held virtually due to COVID-19. AWARD: 3rd place team and £2,000 cash prize.  
  
*Logan, P., O’Leary, M.C., Golden, S.D., Hassmiller Lich, K., Mills, S.D.* (2020 May) Using systems science to advance health equity in tobacco control. Presented at the University of North Carolina at Chapel Hill Map the System Virtual Finals, Chapel Hill, NC. Finals were held virtually due to COVID-19. AWARD: 1st place team and selected to compete in the Map the System Virtual Global Final.
  29. *Hicklin, K., O’Leary, M., Nambiar, S., Mayorga, M., Hassmiller Lich, K., Davis, M. Wheeler, S.* (2019 October) “Assessing the Impact of Multi-component Interventions on Colorectal Cancer Screening: What Would it Take to Reach the 80% Target”, INFORMS Annual Meeting. Technical Presentation. Seattle, WA.

30. *Smith, N.R., Frerichs, L., Minyard, K., MacDonald, R., Gibson, J., & Hassmiller Lich, K.* (2019 June). Bridging the research-to-policy gap using simulation modeling: Recommendations for building simulation models to support public health decision making. Poster presented at the AcademyHealth Annual Research Meeting, June 2-4, Washington, DC.
31. *Nambiar, S., Townsley, R., Mayorga, M., Hassmiller Lich, K., Wheeler, S.* (2017 August) Technical Considerations: the past, present and future of simulation modeling of colorectal cancer. 2017 National Cancer Conference.
32. **Hassmiller Lich, K.**, Jackson-Diop, D., *Cruden, G., Horgan, A.* (2017 March) “An integrated systems thinking approach to supporting youth in transition to healthy and independent adulthood.” Peer-reviewed oral presentation at the 30<sup>th</sup> Annual Research and Policy Conference on Child, Adolescent, and Young Adult Behavioral Health, FL.
33. *Matson, P.A., Fortenberry, J.D., Hassmiller Lich, K., Chung, S., Ellen, J.M.* (2017 March) “The Impact of acute relationship insults on trust and pro-relationship behavior within adolescent romantic relationships: A systems approach.” Peer-reviewed oral presentation (and award winning submission, see awards) at the Society for Adolescent Health and Medicine Annual Meeting, LA.
34. Frerichs, L., Powell, W., Townsley, R., Mayorga, M., Corbie-Smith, G, Wheeler, S., **Hassmiller Lich, K.** (2017) The Potential Impact Of The Affordable Care Act And Medicaid Expansion In North Carolina On Reducing Colorectal Cancer Screening Disparities Among African American Males. INFORMS 2017, Houston TX.
35. *Karmali, R., Hassmiller Lich, K., Martukovich, R., Reichsman, A.* (2016 November) Patient Strengths Design Team (group author), K Stange. “Using stakeholder-engagement and design thinking to support the design, implementation, and evaluation of evidence-based interventions for behavior change that leverage patients’ strengths in primary care.” Peer-reviewed poster presentation at the Patient-Centered Outcomes Research Institute Annual Meeting, MD.
36. *Cruden, G., Hassmiller Lich, K., Jackson-Diop, D., Abdi, F., Fleming, O., Roth, M.* (2016 June) “Systems Support Mapping with Transition-Age Youth to Identify System Change Targets.” Peer-reviewed oral presentation at the Society for Prevention Research Annual Meeting, CA.
37. Cox, S., **Hassmiller Lich, K.** (2016 April) “Increasing Connections between Care Coordinators through Systems-Level Needs Assessment.” Peer-reviewed oral presentation at the Annual Association for Maternal and Child Health Programs Annual Conference, Washington, DC.
38. *Yi, Z., Mayorga, M.E., Hassmiller Lich, K., Pearson, J.L.* (2016 February) “Changes in U.S. Cigarette Smoking Intensity by Age and Race: A Comparison of the 2002-2003 and 2010-2011 TUS-CPS.” Peer-reviewed poster presentation at the American Academy of Health Behavior Annual Meeting, Ponte Vedra Beach, FL.
39. Mayorga, M., *Townsley, R., Hassmiller Lich, K., Wheeler, S.B.* (2016) Evaluating the Impact of Medicaid Expansion on Colorectal Cancer Screening Uptake. INFORMS International, Waikoloa, HI.
40. *Yi, Z., Mayorga, M., Hassmiller Lich, K., Pearson, J.* (2015) A Predictive Model of Smoking Prevalence Based on Individual Dynamics. INFORMS Healthcare, Nashville, TN.
41. *La, E., Morrissey, J., Domino, M., Hassmiller Lich, K., Waller, A., Seibert, J.* (2015 June) External Effects of a State Psychiatric Hospital Waitlist Policy on Emergency Department Utilization. Peer-reviewed poster presentation at the AcademyHealth Annual Research Meeting, Minneapolis, MN.

42. Kohler, R.E., Goyal, R.K., **Hassmiller Lich, K.**, Domino, M.E., Wheeler, S.B. (2015 June) Association between Medical Home Enrollment and Health Care Utilization and Costs among Breast Cancer Survivors in a State Medicaid Program. Peer-reviewed poster presentation at the AcademyHealth Annual Research Meeting, Minneapolis, MN.
43. Mayorga, M., Townsley, R., Cornejo, D., **Hassmiller Lich, K.** (2014 November) Analyzing the Effects of Different Models of Screening Choice in Colorectal Cancer Outcomes. INFORMS 2014, San Francisco, CA.
44. Mayorga, M., Cornejo, D., **Hassmiller Lich, K.** (2014 November) Cost-effectiveness of Colorectal Cancer Screening Interventions Incorporating Patient Choice. INFORMS 2014, San Francisco, CA.
45. Cornejo, D., Mayorga, M., **Hassmiller Lich, K.** (2014 November) Optimizing Public Health Spending for Cancer Screening with a focus on Health Outcomes. INFORMS 2014, San Francisco, CA.
46. Mayorga, M., Townsley, R., Cornejo, D., **Hassmiller Lich, K.**, Wheeler, S.B., Meyer, A.M. (2014 September) Modeling individual heterogeneity in screening choices for colorectal cancer model design impacts outcomes. Health Systems Optimization Workshop, Chicago, IL.
47. Gillen, E.M. (presenter), **Hassmiller Lich, K.**, Holmes, M., Trantham, L., Silberman, P., Weinberger, M. (2014 June) Plan Selection on the North Carolina Health Insurance Exchange. Peer-reviewed poster presentation at the AcademyHealth Annual Research Meeting, San Diego, CA.
48. Townsley, R. (presenter), Mayorga, M., **Hassmiller Lich, K.**, Pearson, J. (2014 June) A Model for Smoking Cessation Treatment Choice and Associated Health Outcomes. Peer-reviewed poster presentation at the Industrial and Systems Engineering Research Conference, Montreal, Canada.
49. Cene, C., Sheble, L., Dave, G., **Hassmiller Lich, K.**, Ritchwood, T.D., Corbie-Smith, G. (2014 February) An Informetric Analysis to Understand how Systems Science Methods Have Been Applied in Health Disparities Research. Peer-reviewed poster presentation at Complex Systems, Health Disparities & Population Health: Building Bridges, Bethesda, MD.
50. Mayorga, M. (presenter), **Hassmiller Lich, K.** A Colorectal Cancer Screening Model Incorporating Patient Choice. (2013 October) Peer-reviewed oral presentation at INFORMS 2013, Minneapolis, MN.
51. **Hassmiller Lich, K.**, Wheeler, S.B. (presenter), Wickramage, N., Mayorga, M. (2013 June) Perspective Matters: Insights from Choosing the Best Simulation Study Design for Optimizing Colorectal Cancer Screening in North Carolina. Peer-reviewed oral presentation at INFORMS Healthcare 2013, Chicago, IL.
52. **Hassmiller Lich, K.** (presenter). (2013 May) Using a Dynamic Computational Model to Support Identification of Policy and Research Priorities in the Context of Substantial Uncertainty. Invited Paper Symposium Session (oral) on Using System Science Modeling for Prevention Research and Programming at the 2013 Society for Prevention Research, San Francisco, CA.
53. **Hassmiller Lich, K.** (presenter and panel co-organizer with H Meissner and P Mabry at NIH OBSSR). (2012 March) Systems Science Methodologies: Involving Stakeholders to Enhance D&I Research. Peer-reviewed oral presentation and panel at 5th Annual NIH Conference on the Science of Dissemination and Implementation, Washington, DC, March.
54. Beadles, C.A., Kaufman M.A., Homer, J., Cheng, E., Williams, L.S., Bravata, D.M., Matchar, D., Bosworth, H.B., **Hassmiller Lich, K.** (presenter). (2011 March) Using System Dynamics Tools to

Integrate Evidence into VA Stroke Care. Peer-reviewed oral presentation at the VA Health Services Research & Development National Meeting, Washington, DC, March 2011.

55. **Hassmiller Lich, K.**, Osgood, N.D., Dyck, R.F., Al-Azem, A., *Mahamoud, A* (presenter). (2009 December) Why We Must Care About the Effects of Diabetes and Smoking on TB: What We Know and Don't Know (But Need To). Peer-reviewed poster presentation at the 40th Union World Conference on Lung Health, Cancun, Mexico.
56. **Hassmiller Lich, K.** (presenter), Osgood, N.D., Al-Azem, A. (2009 October) The Challenge of Controlling Tuberculosis: Using Systems Science Methods to Inform Complex Population-Health Problems where Earlier Influences Shape Later Life Outcomes. Peer-reviewed poster presentation at the 2009 Society for the Study of Human Development Biennial Meeting, Ann Arbor, MI.
57. **Hassmiller Lich, K.** (2009 March) Tobacco Control Increases Infectious Disease Control. Invited speaker in an International Union for Health Promotion and Education Symposium entitled "Incorporating Tobacco Control into Poverty Alleviation Schemes" at the 14<sup>th</sup> Annual World Conference on Tobacco or Health, Mumbai, India.
58. Matchar, D.B. (presenter), **Hassmiller Lich, K.** (presenter), Homer, J., Lee, S.D. (2008 December) Using System Dynamics Methodology for Strategic Planning in VA QUERI Programs. Peer-reviewed (oral) workshop at the US Department of Veterans Affairs National Quality Enhancement Research Initiative Meeting, Denver, CO.
59. Matchar, D.B., **Hassmiller Lich, K.** (presenter), Homer, J., Lee, S.D. Using System Dynamics Tools to Integrate Evidence into VA Stroke Care. (2008 December) Peer-reviewed poster presentation at the US Department of Veterans Affairs National Quality Enhancement Research Initiative Meeting, Denver, CO.
60. **Hassmiller Lich, K.** (2007 April) The Impact of Smoking on Population-Level Tuberculosis Outcomes. Peer-reviewed oral presentation at the Tuberculosis Surveillance Research Unit Annual Meeting, Den Haag, Netherlands.
61. **Hassmiller, K.M.** (2006 November) Using Modeling to Understand the Impact of Smoking on Population-Level Tuberculosis Outcomes. Peer-reviewed poster presentation at the 37<sup>th</sup> Union World Conference on Lung Health, Paris, France.
62. **Hassmiller, K.M.** (2006 July) The Impact of Smoking on Population-Level Tuberculosis Outcomes: Findings and Policy Implications. Peer-reviewed oral presentation at the 13<sup>th</sup> World Conference on Tobacco or Health, Washington, DC.
63. Warner, K.E., **Hassmiller, K.M.** (2005 December) Reducing Initiation Versus Increasing Cessation: An Investigation of the Differential Impact of Smoking Control Policies on Smoking-Related Deaths and Medical Costs in the US. D Mendez (presenter), Peer-reviewed oral presentation at the Annual Meeting of the American Public Health Association, Philadelphia, PA.
64. **Hassmiller, K.M.** (presenter), Mendez, D., Warner, K.E., Kirschner, D., Simon, C.P. (2005 September) The Impact of Smoking on Population-Level Tuberculosis Outcomes. Peer-reviewed poster presentation at the Advanced Workshop on Tuberculosis, Lisbon, Portugal.
65. **Hassmiller, K.M.** (2004 November) The Impact of Smoking on the Spread of Tuberculosis. Peer-reviewed poster presentation at the 35<sup>th</sup> Union World Conference on Lung Health, Paris, France.



66. **Hassmiller, K.M.** (2004 May) Constructing an Agent-Based Model of the Spread of Tuberculosis. Peer-reviewed poster presentation at the Eighth Annual Swarm Users/Researchers Conference, Ann Arbor, Michigan.

### **Other Products of Scholarship**

#### **Examples of news coverage:**

1. APA Presidential Task Force leadership developing a simulation concept model:  
<https://psychnews.psychiatryonline.org/doi/10.1176/appi.pn.2022.07.7.27> and  
<https://www.psychiatry.org/news-room/news-releases/apa-report-on-psychiatric-bed-crisis>
2. Related to our use of system dynamics approach to community-engaged systems thinking in support of county-level strategic planning for how to use Opioid settlement funds:  
<https://www.mtairynews.com/top-stories/110427/sync-seeks-to-reduce-childhood-trauma> and  
<https://www.mtairynews.com/news/111420/group-seeking-to-change-outcomes-for-kids>
3. Related to COVID-19 simulation:  
<https://abc11.com/children-and-covid-kids-in-schools-julie-swann/10960027/>

#### **Examples of online decision-support tools:**

1. Related to road safety/policy:  
<https://exchange.iseesystems.com/public/beckynaumann/cpp-and-pedestrian-injury/index.html#page18>
2. Related to COVID-19 simulation:  
<https://covsim.hosted-wordpress.oit.ncsu.edu/> and  
<https://news.ncsu.edu/2021/05/covid-19-model-for-nc-2021/>
3. Related to cross-system action to improve birth equity:  
<https://amchp.org/resources/birth-equity-action-map/#:~:text=The%20Birth%20Equity%20Ecosystem%20Map%20helps%20us%20appreciate%20the%20big,%20C%20and%20social%20%26%20economic%20support>

#### **Examples of online training material I helped to develop:**

1. Maternal and child health:  
“Introduction to system mapping – 5-minute video series” -  
<https://www.mchnavigator.org/transformation/resources/system-mapping-video-series.php>
2. Injury prevention/road safety:  
“Leveraging a Systems Thinking Approach for ACEs & Suicide Prevention in a Remote Environment” -  
<https://training.safestates.org/course/leveraging-a-systems-thinking-approach-for-aces-suicide-prevention-in-a-remote-environment/>

#### **Invited presentations and workgroups**

1. **Hassmiller Lich, K.** and Simon, J. (2023 November) “Strengthening Your Title V System: Systems approaches to advance equity “ Invited skill-building session at the Title V Federal-State Maternal and Child Health (MCH) Partnership Meeting, Washington DC.
2. **Hassmiller Lich, K.** (2023 May) “Update on the psychiatric bed crisis: Real-world problems and potential virtual-world solutions. Update on using the model in practice.” Invited presentation in a Presidential Panel at the American Psychiatric Association Annual Meeting, San Francisco, CA.

3. **Hassmiller Lich, K.** (2022 June) “Using modeling to integrate evidence and inform action.” Invited 1-hour seminar on the role of simulation modeling in health policy for the University of Texas Center for Health Systems Research, Policy, and Practice.
4. **Hassmiller Lich, K.** (2022 May) “The Psychiatric Bed Crisis in the U.S.: Understanding the Problem and Moving Toward Solutions. An overview of the model.” Invited presentation in a Presidential Panel at the American Psychiatric Association Annual Meeting, New Orleans, LA.
5. **Hassmiller Lich, K.** (2022 May) “Making Complexity Pragmatic Again: Practical steps for systems mapping and modeling.” Invited keynote speaker at the Colorado Pragmatic research in Health Conference (COPRH Con), virtual.
6. **Hassmiller Lich, K. & Mengesha, B.** (2020 August) “Leadership Skills for Advancing Health Equity in Family Planning and Reproductive Health.” Dr. Hassmiller Lich was invited to organize and present this 3-hour pre-conference workshop at the National Reproductive Health Conference, Virtual.
7. **Hassmiller Lich, K.** (2020 May) “Bending the Curve on Chlamydia Screening Rates.” Invited 1.5-hour skill building session on using System Dynamics at the Family Planning National Training Center Leadership Institute for Title X Family Planning Workforce, Virtual.
8. **Hassmiller Lich, K.** (2016 May) “System Versus Service-Level Change: Definitions and Tools to Help Diverse Teams Understand how to Approach System-Level Change.” Invited Keynote Speaker at the New York Center of Excellence in Maternal and Infant Health Annual Maternal and Infant Health Conference, Albany, NY.
9. **Hassmiller Lich, K.** (2015 September) “Stakeholder Engagement in Systems Mapping.” Invited Oral Presentation at the “Reimagining Health in Cities: New Directions in Urban Health Research” Meeting, Drexel, Philadelphia, PA.
10. **Hassmiller Lich, K.** (2013 September) “Systems Science Tools: What Are They and How Can We Use Them with Surveillance?” Public Health Informatics: Science to Practice with Transdisciplinary Collaboration. Annual Public Health Informatics Workshop, sponsored by the UNC Gillings School of Global Public Health and the UNC School of Information and Library Science, Chapel Hill, NC.
11. **Hassmiller Lich, K.** (2012 April) “Systems Science Models for Novel Programming and Policies Responsive to Translational Research Findings.” Invited Lecture at the “Advancing Transdisciplinary Translation for Prevention of High Risk Behaviors” working conference, sponsored by NINR, RTP, NC, Training Institute for Dissemination and Implementation Research in Health, Chapel Hill, NC.
12. **Hassmiller Lich, K.** (2012 February) “Using Systems Science Methods to Sustain the Gains.” Invited to participate in a work group to assess the “state of the science” on sustainability of evidence-based intervention in health care and to develop a research agenda. Invitation to discuss the potential role for systems science methods in sustainability research at this NIH-funded workgroup meeting, St. Louis, MO.
13. **Hassmiller Lich, K., Morrissey, J.P.** (2011 August) “System Dynamics: Tools for Dissemination and Implementation Research.” Invited Lecture at the Training Institute for Dissemination and Implementation Research in Health, Chapel Hill, NC.
14. **Hassmiller Lich, K.** (2010 June) “System Dynamics Modeling: Exploring Policy Scenarios (A Basic Primer on System Dynamics Modeling).” Invited Lecture at the Systems Science Methodologies for Prevention Research Pre-Conference Workshop, Denver, CO.

15. **Hassmiller Lich, K.** (2010 June) “Using System Dynamics to Study the Interaction between Tobacco and Tuberculosis.” Invited Lecture in Symposium: The Application of System Sciences Methodologies to Prevention Research at the Society for Prevention Research Annual Meeting, Denver, CO.
16. **Hassmiller Lich, K.** (2009 May) “Using System Dynamics Models to Reshape Policy Priorities: The Case of Tobacco and Tuberculosis.” Invited Lecture at the Institute on Systems Science and Health: Ann Arbor, MI.
17. **Hassmiller Lich, K.** (2008 September) “Workshop on Environmental Systems in Public Health.” Invited to participate in the National Institute of Child Health and Human Development (NICHD) and National Institute of Environmental Health Sciences (NIEHS) sponsored meeting, Bethesda, MD.
18. **Hassmiller Lich, K.** (2008 April) “Influencing Policy and Decision Makers.” Discussant at the Healthcare Engineering Alliance’s First Annual Healthcare Engineering Symposium on the Interface of Health Services Research and Healthcare Engineering, Raleigh, NC.
19. **Hassmiller Lich, K.** (2007 December) “The Impact of Smoking on Population-Level Tuberculosis Outcomes.” Invited seminar for the Centers for Disease Control and Prevention (CDC) Office on Smoking and Health and Division of Tuberculosis Elimination, Atlanta, GA.
20. **Hassmiller Lich, K.** (2007 May) “Applications in Policy.” Invited oral presentation at the Complex Systems Approaches to Population Health Symposium, Ann Arbor, MI.
21. **Hassmiller Lich, K.** (2007 May) “The Impact of Smoking on Population-Level Tuberculosis Outcomes.” Invited seminar in the Duke-UNC Tuberculosis series, Chapel Hill, NC.
22. **Hassmiller Lich, K.** (2006 February) “Reducing Deaths from Tobacco and TB Together.” Invited to participate in meeting co-sponsored by researchers from the Yale School of Public Health and the World Health Organization to discuss and enhance initiatives to address TB and tobacco together, Geneva, Switzerland.
23. **Hassmiller Lich, K.** (2005 August) “What’s in a Name? Examination of Light and Intermittent Smokers.” Invited to participate in an expert panel sponsored by the National Cancer Institute and the American Legacy Foundation, Washington, DC.

## **TEACHING ACTIVITIES**

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### **Courses Taught (past 3 three years)**

**University of North Carolina at Chapel Hill**  
 Department of Health Policy and Management

#### Spring 2024

HPM 785: Advanced Decision Support Modeling (graduate; 3 credit hours) – 12 students  
 HPM 966 (co-instructed with a doctoral teaching fellow): Systems Thinking and Collective Impact (graduate, DrPH; 1 credit hour) – 14 students

#### Fall 2023

HPM 797: Systems Thinking and Collective Impact (graduate; 3 credit hours) – 11 students

#### Spring 2023

HPM 785: Advanced Decision Support Modeling (graduate; 3 credit hours) – 3 students; 1 auditor

HPM 966: Systems Thinking and Collective Impact (graduate, DrPH; 1 credit hour) – 14 students  
Fall 2022

HPM 797: Systems Thinking and Collective Impact (graduate; 3 credit hours) – 22 students

Spring 2022

HPM 785: Advanced Decision Support Modeling (graduate; 3 credit hours) – 6 students; 1 auditor

HPM 966: Systems Thinking and Collective Impact (graduate, DrPH; 1 credit hour) – 14 students

Fall 2021

HPM 797: Systems Thinking and Collective Impact (graduate; 3 credit hours) – 15 students

**Systems Science for Social Impact (based at Washington University in St. Louis)**

System Dynamics Track,

Intensive week-long training program co-taught with Nasim Sabounchi; scholars from US and abroad

Summer 2023: 8 scholars; Summer 2022: 5 scholars; Summer 2021: 15 scholars

**Advising**

**JUNIOR FACULTY MENTEES**

Sean Sylva, Associate Professor, Health Policy & Management, UNC, July 2022-June 2026  
Primary mentor on NIH K01

Anna Kahkoska, Assistant Professor, Nutrition, UNC, Jan 2020-  
Primary mentor on TraCS KL2 (NIH), mentor on K01 (under review, NIH)

Mehul Patel, Assistant Professor, Emergency Medicine, UNC, Jan 2020-  
Primary mentor on TraCS KL2 (NIH)

Sarah Mills, Assistant Professor, Health Behavior, UNC, Sept 2019-Aug 2024  
Primary mentor on NIH K01 (NCI)

Leah Frerichs, Associate Professor, Health Policy & Management, UNC, Sept 2016-2023  
Departmental faculty mentor and secondary K01 mentor

Pam Matson, Associate Professor, Pediatrics, Johns Hopkins University, July 2014-June 2019  
Primary mentor on NIH K01 (NIDA)

**POST-DOCTORAL FELLOWS MENTORED**

Natalie Smith, PhD (Postdoctoral Research Fellow in Social and Behavioral Sciences at Harvard), Jan 2022-ongoing

Natalie specializes in decision support modeling and implementation science to inform and evaluate health policy. I am her primary mentor on her NIH K99-R00, which she began in fall 2022.

Karen Hicklin, PhD (Cancer Health Disparities Postdoctoral Program), Sept 2018-Aug 2020

Karen specialize in the application of industrial and systems engineering methods to inform medical decision making, with a particular focus on health equity and cancer. She completed a Post-doctoral Fellowship under my mentorship at the Gillings School of Global Public Health, and thereafter accepted a tenure-track position in the Department of Industrial and Systems Engineering at the University of Florida.

Larissa Calancie, PhD (Center for Health Equity Research), June 2016-Aug 2019

Larissa specializes in supporting cross-sector collaborations in identifying targets for strengthening systems and making systemic change in practice, environment, and/or policy to improve healthy eating and address disparities in access to healthy food.

Leah Frerichs, PhD (Center for Health Equity Research), Aug 2014-Aug 2016

Leah specializes in the use of systems science and community-based participatory research methods to address health disparities and create healthy communities. Leah has accepted a tenure-track job in the Department of Health Policy & Management at the University of North Carolina at Chapel Hill.

## DOCTORAL STUDENTS

**Doctoral dissertation chair/advisor** (16 total: 10 completed and 4 ongoing PhD, 2 ongoing DrPH)

- Maya Wilson (HPM PhD, expected spring 2027), pre-dissertation defense
- Sara Allinder (HPM DrPH, expected spring 2026), pre-dissertation defense
- Jeremy Fine (HPM PhD, expected spring 2026), pre-dissertation defense though he has just been awarded an NIH F30
- Beth Lowder (HPM DrPH, expected fall 2025), pre-dissertation defense
- Doyoung Kim (HPM PhD, expected spring 2025), “Unpaid Caregivers of Older Adults with Cognitive Impairment: Their Experiences, Association with Care-Recipients' Outcomes, and Implications for Cost-Effectiveness Analyses of Dementia Interventions”
- Joseph Konstanzer (HPM PhD, expected fall 2024), “Out-of-state psychiatric residential treatment facility placements: Causes, consequences, and solutions”
- Isabella Alder Gynn (HPM PhD, expected summer 2024), “Understanding adaptation of evidence-based interventions from a systems perspective: A practical application of integrating implementation science with system science to guide scaling of a community health worker program”
- Pierre Berastain (HPM DrPH, 2024), “The impact of and responses to scarcity among domestic violence organizations in the United States”
- Karl Johnson (HPM PhD 2023), “Public health governance to advance public health 3.0: Interrogating the strategies and governance structures of local governmental health departments in North Carolina and across the country”
- Hadi Beyhaghi (HPM PhD 2022), “Evidence-based prescribing of novel agents for advanced melanoma: Integrating treatment effectiveness and patient values.”
- Emily Mangone (HPM PhD 2022), “Development and assessment of contraceptive ideational profiles among urban women of reproductive age in Senegal: Implications for health communication programs.”
- Gracelyn Cruden (HPM PhD 2019), “Supporting decision making for the prevention of child maltreatment in North Carolina.”
- Seri Link (HPM PhD 2018), “The cost-effectiveness of improved communication of pregnancy risk and contraceptive information.”
- Ruchir Karmali (HPM PhD 2018), “The importance of options: Is the supply of non-pharmacologic pain management providers linked to opioid use?”
- Jamie Jarmul (HPM PhD 2017), “Clinical utility and cost-effectiveness of cardiovascular genetic risk testing for targeting statin therapy in primary prevention of cardiovascular disease.”
- Todd Durham (HPM PhD 2016), “In the era of target-specific anticoagulants, can novel decision tools improve the health-related quality of life of adults with atrial fibrillation?”
- Emily Gillen (HPM PhD 2015), “Determinants and effects of plan selection in the non-group health insurance market under ACA.”
- Diana Chirovsky (HPM PhD 2014), “Comparative effectiveness of surveillance and current treatment approaches for the detection and management of hepatocellular carcinoma in East Asia.”
- Chris Beadles (HPM PhD 2013), “Effect of policy and practice changes on oral anticoagulation use in North Carolina.”

**Doctoral committee member** (33 total: 18 completed and 4 ongoing PhD, 11 completed DrPH)

- Ellison Henry (MCH PhD, expected fall 2024), “Applying causal loop diagramming and the levels of leverage framework to enhance community decision-making when addressing the COVID-19 pandemic in North Carolina elementary schools “
- Hannah Margaret Clare (HPM PhD, expected fall 2024), “Unraveling the diagnostic odyssey in children with suspected genetic diseases: a systems approach to the search for a diagnosis”
- Juan Yanguela (HPM PhD, expected summer 2024), “Understanding racial inequities along the lung cancer prevention and care continuum: from North Carolina counties to the entire nation”
- Raunak Mahtani (Design, NCSU PhD, 2024), “Systemic understanding and intervention for postpartum health education”
- Priscille Koutouan (Industrial and Systems Engineering, NCSU PhD 2023), “Disease intervention evaluation using simulation modeling: The impact of uncertainty”
- Daniel Gibbs (Social Work PhD, 2023), “Understanding foster youths’ mental health services access and pathways to care”
- Sophie Ravanbakht (HPM PhD, 2023), “The influence of intergenerational acculturation and stress on pediatric obesity in US Latinos: An exploration using decision and systems science”
- Thea Runyan (HPM DrPH, 2023), “Using a youth-centered approach to design an engaging digital health intervention for the treatment of anxiety in low-income Hispanic/Latinx youth”
- David Pope (HPM DrPH, 2023), “Going upstream: How community-based mental health services can reduce use of the emergency department for mental health crises in rural North Carolina”
- Sepheen Byron (HPM DrPH, 2022), “State levers related to successful health information exchange among Medicaid providers.”
- Lindsey Yates (HPM PhD 2021), “Racial Differences in Immediate Postpartum Long-Acting Reversible Contraception.”
- Amy Ising (Center for Health Informatics PhD 2021), “Leveraging NC DETECT ED visit data for local chronic disease and mental health surveillance.”
- Yvette Williams (HPM DrPH 2021), “Emergency Department Super-Utilization: Best Practices for Management in the Medicaid Population.”
- Barb Martin (HPM DrPH 2021), “Improving public health Communication in a politically polarized environment: Exploring The use of moral Values in message Framing.”
- Kate Saylor (Public Policy PhD 2021), “Fairness-informed cost-utility analysis methods to assess the potential of population genetic screening to improve health and reduce disparities.”
- Natalie Smith (HPM PhD 2021), “Simulating the impact of a sugar-sweetened beverage tax.”
- Amber Haley (HPM PhD 2020), “Promoting equity in implementation science: researcher readiness for stakeholder engagement, patient-centered implementation, and tracking strategy modification.”
- Alison Swiatlo (MCH PhD 2020), “Latent contraceptive behavior dynamics and pregnancy experiences among a national sample of U.S. women.”
- Oscar Fleming (HPM DrPH 2020), “Organizing the workforce to improve child well-being: A scoping review and qualitative study of implementation support teams.”
- Syril Petit (HPM DrPH 2019), “How can adverse events information be used to more effectively inform cancer patient care?”
- Rachel Townsley (North Carolina State University Industrial and Systems Engineering PhD, 2018), “An Examination of Individual Sequential Behavior Modeling in the Context of Healthcare Simulation.”
- Christine Kim (HPM PHD, expected graduation 2020), “An assessment of access and use of maternal health care in Afghanistan.”
- Deanna Befus (Duke Nursing PhD 2017), “A systems thinking, community-based research approach for health equity and agency: women’s migraine as a paradigmatic case.”
- Kei Alegria-Flores (HPM PhD 2017), “Complex systems: An innovative approach to improve drug-resistant tuberculosis treatment adherence.”

- Bernie Agala (HPM PhD 2017), “Referral network factors and health outcomes among HIV+ women in Ethiopia.”
- Zinan Yi (NC State Ind. & Systems Engineering PhD 2016), “Anticipating U.S. population-level health trends based on individual-level dynamics to inform public policy decisions.”
- Tyonne Hinson (HPM DrPH 2016), “Perceptions of the facilitators and barriers of breastfeeding initiation: Increasing initiation through a tailored approach of practice interventions and policy for African-American mothers.”
- Raymond Smith (NC State Ind. & Systems Engineering PhD 2016), “Whole hospital capacity dynamics: modeling and exploration.”
- Sue Lynne Ledford (HPM DrPH 2015), “Improving the transition process from pediatric to adult HIV care in North Carolina: A patient and family-centered perspective.”
- Elizabeth Holdsworth La (HPM PhD 2013), “The effects of a state psychiatric hospital waitlist policy on mental health safety net providers.”
- Aaron Ratcliffe (Business School PhD 2013), “Operating on quality, access, cost: Managing better health systems.”
- Jennifer Olsen (HPM DrPH 2013), “Infodemiology to improve public health situational awareness: An investigation of 2010 pertussis outbreaks in California, Michigan and Ohio.”
- Alex Mills (Stats & Operations Research PhD 2012), “Patient prioritization in a mass-casualty incident with resource limitations.”
- Heather Beil (HPM PhD 2011), “The effect of early and regular preventive dental visits on treatment use, costs and dental disease.”
- Amy Kircher (HPM DrPH 2010), “Defining how public health interventions are triggered during a no-notice infectious disease outbreak.”

## **MASTERS STUDENTS**

### **Leadership Education in Neurodevelopmental and Related Disabilities (LEND) Trainee Mentor, Carolina Institute for Developmental Disabilities (CIDD)**

Nwoko Nkechinyere (MSPH), Primary mentor, Fall 2019-Spring 2020

Jan Lee Santos (MHA), Primary mentor, Fall 2016-Spring 2017

Crystal Miller Moore (MHA), Primary mentor, Fall 2015-spring 2016

### **Masters Papers Advised**

Sara Stahl (MSPH), First reader, Fall 2023-Spring 2024

“Systematic review of common practices in cross-system collaborations for child and adolescent mental health in the United States.”

Ian Daniel (MSPH), First reader, Fall 2021-Spring 2022

“Real-world value of telehealth engagement in postpartum care in the United States”

Nwoko Nkechinyere (MSPH), First reader, Fall 2019, Spring 2022 (medical leave)

”The comparative effectiveness of digital health intervention implementation strategies for young people with chronic health conditions: An umbrella systematic review protocol toward the formulation of a novel systems thinking self-management framework.”

Celia Stafford (MPH, Biostatistics), Advisor, Fall 2019-Spring 2020

“Predicting Dropout from Opioid Addiction Treatment: A Machine Learning Approach”

Lillie Molavi (MSPH, MBA), First reader, Fall 2019-Spring 2020

“Therapeutic Diversion as an Alternative to Traditional Restrictive Housing: A Prelude to Cost-Effectiveness Analysis”

Caitlin Fross (MSPH), Second reader, Fall 2015-Spring 2016

“Evaluating the use of community health workers to provide maternal healthcare services in Haiti.”

Antonia Caldwell (MSPH), First reader, Fall 2015-Spring 2016  
“Re-designing care coordination at Gillette Children’s Specialty Healthcare.”

Aaisha Fatima (MSPH), First reader, Fall 2015-Spring 2016  
“Cost-effectiveness of Virtual Surgical Planning versus usual care in mandibular reconstruction.”

Amelia Summerell (MSPH), Second reader, Fall 2015-Spring 2016  
“Assessing the impact of an oral nutritional supplement program for patients with COPD.”

Shona Hang (MSPH), First reader, Fall 2013-Spring 2014  
“Patient and visit-level variables associated with late arrival to pediatric clinic appointments.”

Diep Thuy Nguyen (MSPH), First reader, Fall 2013-Spring 2014  
“Modeling the transmission dynamics of lymphatic filariasis: Evaluating the impact of combining doxycycline regimens with mass drug administration.”

Jonathan Brolund (MSPH), Second reader Fall 2013-Spring 2014  
“Network analysis as a measure of emergency preparedness.”

Linda Hong (MSPH), First reader, Fall 2013-Spring 2014  
“Cost-effectiveness analysis of tofacitinib versus tumor necrosis factor alpha inhibitors in combination with methotrexate for rheumatoid arthritis patients with inadequate response to methotrexate.”

Asiyah Mikkil (MSPH), First reader, Fall 2011-Spring 2012  
“An analysis of colorectal cancer screening interventions for the uninsured in North Carolina using the RE-AIM framework.”

Henita Kuntawala (MSPH), Second reader, Summer 2010-Spring 2011  
“Patient-centered medical home: Describing the evolution of UNC practices and its impact.”

Elina Urli Hodges (MSPH), First reader, Fall 2009-Spring 2010  
“Smoking during pregnancy: Assisting policymakers in selecting cessation interventions in lower income countries.”

Lauren Brown (MSPH), Second reader, Fall 2009-Spring 2010  
“Cost-effectiveness of vaccination for the prevention of haemophilus influenzae Type B disease among infants and young children in the People’s Republic of China.”

### **Masters students advised**

Graduated: Nisha Pasupuleti (2015), Haylee McBrayer (2015), Brett Bingham (2015), Jorge Villanueva Medina (2014), Christopher Coughlin (2014), Brian Cooper (2014), Doug Ingalls (2013), Ramya Parthasarathy (2013), Phil Cook (2012), Eugene Rossitch (2011), Matthew Hasbrouck (2011), Andrea Mercer (2010), Mary Herring (2010), Robert Hickling (2010), Maureen Alison Cubero (2009), Bindi Naik (2008).

### **UNDERGRADUATE STUDENTS**

#### **Bachelor’s Honors Projects Advised**

Camille Fulbright (BSPH), First reader, Fall 2016-Spring 2017  
“Understanding how systems can better support LGBTQ young adults as they transition into healthy and independent adulthood.”

Melissa Martinez (BSPH), First reader, Fall 2012-Spring 2013  
“Environmental monitoring of high touch surfaces in the hospital setting.”

#### **Bachelor’s students advised:**

Graduated: Emily Cerciello (2015), LeVelton Thomas (2009), Stacy Michal (2009), Jane Moore (2009), Christine Ackley (2008), Monika Gondha (2008).



## RESEARCH GRANTS

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**ACTIVE** (organized with end date from most to least recent)

**National Institutes of Health (NIDA) and FDA (1U54-DA060049-01) 9/1/2023-8/31/2028**

*“Advancing Tobacco Regulatory Science to Reduce Health Disparities:”*

In this project we will estimate the impact of a ban on flavored cigars on tobacco use, morbidity, and mortality in the US. We will undertake a literature review and expert engagement to understand the magnitude of the impact of bans in different configurations and in community with different contexts (e.g., demographics, levels of enforcement, proximity to a location without a ban). We will create a model interface to support communities and states in planning how best to support tobacco control in the face of different ban scenarios. **PIs:K Ribisl, S Mills and K Hassmiller Lich (35% effort).** Total costs: \$18,642,346.

**National Institutes of Health (NIMHD) 1R01MD018031- 7/1/2023 – 1/31/2028**

*“Regionalization of Acute Stroke Care for Rural Populations: A Systems Modeling Approach”*

Overall objective is to use systems science and simulation modeling to develop a decision-analytic tool that allows stroke system planners to compare potential effects of regionalized EMS triage and transport strategies on rural stroke outcomes and health care resource utilization. PI M. Patel, **K Hassmiller Lich: Co-investigator (8% effort)** Total Costs \$2,831,914

**US Department of Health and Human Services Health Resources and Services Administration, MCH Bureau (5-UE7MC26282) 9/01/2013-8/31/2026**

*“National Consolidated Center for MCH Workforce Development”*

On this grant, I lead the Systems Integration Core in developing and offering universal training (web-based self-directed), targeted training (live and web-based short courses), and intensive training (consulting/coaching on how to approach collaborative system strengthening initiatives) to support State Title V workforce in ensuring optimal maternal and child health (MCH) outcomes in a time of funding reductions, health care reform, and increasing need for systems integration methods that address social and environmental determinants of health, engage stakeholders and consumers, align investments and demonstrate collaborative use of data. PI: D Cilenti; **K Hassmiller Lich: Co-investigator (40% effort 2013-18, 30% 2019-2020, 25% effort 2021-2026).** Total costs \$5,329,322 (phase 1, 2013-16), \$8,319,513 (phase 2, 2016-2021), and \$6,531,098 (phase 3, 2021-2026).

**National Institutes of Health (NCI) (1-P01-CA250989-01A1) 9/1/2022-8/31/2026**

*“Program Project – Improving Provider Announcement Communication Training (IMPACT)”*

This grant funds a Program Project on ways to improve provider communication about HPV vaccination and increase uptake among adolescents. I support the decision-support analysis and simulation modeling in which you compare alternatives identified to improve vaccination. PI: N Brewer; **K Hassmiller Lich: Co-Investigator (3% effort in years 1-2, 15% in years 3-4).** Total costs \$11,755,859 .

**National Institutes of Health (NHLBI) (1-R01-HL157255) 8/15/2021-7/14/2026**

*“Heart Matters: Collaborate and Leverage Evidence in an African American Rural Network CO-LEARN) to Implement Risk Reduction Strategies for CVD”*

Guided by the Consolidated Framework for Implementation Research (CFIR), we aim to study the implementation and effectiveness of the Heart Matters EBP by scaling it in five rural eastern NC counties heavily populated by African Americans with high CVD burden. I will support understanding of implementation challenges and supports through system mapping with those with a role in implementation or use of the intervention. PI: G Corbie-Smith and G Dave; **K Hassmiller Lich: Co-Investigator (5% effort).** Total costs \$3,103,256.

**National Institutes of Health (NIMHD) 1-U24-MD016258-01 9/01/2020–12/31/2025**

*“Rapid Acceleration of Diagnostics for Underserved Populations (RADx-UP) Coordinating and Data Collection Center (CDCC)”*

The overall goal of the RADx-UP CDCC is to facilitate RADx-UP collaborative research by providing organizational and analytical infrastructure and expertise, supporting data integration and analysis, and coordinating across RADx-UP projects and the NIH-supported RADx initiatives that are developing and validating new COVID-19 testing technologies. PI: Cohen-Wolkowicz, Kibbe; **K. Hassmiller Lich: Co-Investigator (10-20% effort in years 1-3, 2.5% in years 4-5)**. Total costs \$74,107,495.

**National Institutes of Health (NCI) 5-UH3-CA233251 09/01/2019 – 08/31/2025**

*“Scaling Colorectal Cancer Screening Through Outreach, Referral, and Engagement (SCORE): A State-Level Program to Reduce Colorectal Cancer Burden in Vulnerable Populations”*

Our objective is to build on our pilot and planning phase work (1-UG3-CA233251), implement and evaluate multilevel CRC screening approaches in vulnerable populations in NC, conduct our signature trial, assess implementation outcomes, evaluate the use of stakeholder-engaged modeling for sustaining and scaling the multilevel intervention, and select and evaluate locally developed innovations for improving screening. PI: D. Reuland; **K. Hassmiller Lich: Co-Investigator (10% effort)**. (Total Cost \$4,395,527).

**National Institutes of Health (NIMHD) R21MD019082 09/01/2023 – 5/31/2025**

*“Regional Trauma Systems of Care to Address Rural Disparities in Injury Mortality”*

This project’s objective is to develop a causal loop diagram of regional trauma systems informed by secondary analysis of existing data and key stakeholder input. We will create a comprehensive dataset linking existing statewide data from North Carolina on EMS and in-hospital trauma care, trauma patient mortality, and patient and community demographics and socioeconomic status. Our long-term research goal is to use complex systems theory and simulation modeling to design, implement, and evaluate system-level changes to regionalized trauma care that improve population health and address health disparities. PI M. Patel, **Hassmiller Lich: Co-Investigator (5% effort)**. Total Costs \$435,405

**National Heart, Lung, and Blood Institute (NIH) 1-R01HL150909 01/01/2020-12/31/2024**

*“Implementation of EMR-Integrated Referrals to Link Clinical and Community Services to Reduce Health Inequity”*

The major goal of this project is to identify factors that influence implementation and assess the health impact of a closed-loop referral system to community health-promoting resources in a rural setting. PI: Corbie-Smith, Dave, G., Lindau; **K. Hassmiller Lich: Co-Investigator (10% effort)**. Total direct costs \$1,341,516 (Total Costs \$2,670,897).

**NC Governor’s Highway Safety Program (Contract# 2000070358) 10/01/20-09/30/24**

*“Strengthening and Diversifying Vision Zero (VZ) Coalitions and Road Safety Action in NC Communities”*

In NC, six communities have committed to implementing local Vision Zero programs, and the state’s transportation secretary has announced an overall NC VZ initiative. With this support, NC has an opportunity to demonstrate what strategic, tailored, and effective VZ planning and implementation can look like across a range of settings and communities, potentially becoming a model for other states and more importantly lowering the number killed or seriously injured from road traffic crashes. The purpose of this project is to 1) reinforce and diversify sector and discipline representation within NC VZ community coalitions; 2) build capacity among these multi-disciplinary NC VZ coalitions to work cohesively towards VZ implementation by conducting a three-day NC VZ “leadership team” training; and 3) provide consistent support and “coaching” to NC VZ communities to ensure momentum on specific VZ planning and implementation tasks. PI: E. Keefe, B. Naumann; **K. Hassmiller Lich: Co-Investigator (10% effort)**. Total costs \$457,167 current year.

**Centers for Disease Control (5-NU38OT000286-02)**

**08/01/2019-07/31/2024**

*“Using simulation to project long-term CRC outcomes attributable to clinic-based screening interventions”*

The goal of this project is to adapt and enhance components of existing colorectal cancer simulation model (NC PopSim-CRC) to simulate the lifelong impacts of receiving and not receiving a colonoscopy among a group of individuals unlikely to be screened otherwise.

PI: Roberts; **K. Hassmiller Lich: UNC Subcontract PI (10% effort)**. Total costs \$3,000,000.

American Academy of Pediatrics (HRSA) U1T49104 07/01/2023 -06/03/2024

*“Building Systems of Services for Children and Youth with Special Health Care Needs”*

The purpose of this program is to advance the system of services for children and youth with special health care needs (CYSHCN) by supporting the implementation of the Blueprint for Change: Guiding Principles for a System of Services for Children and Youth With Special Health Care Needs<sup>1</sup>(Blueprint for Change), a national agenda to improve health and well-being for CYSHCN and their families. This program will assist Title V programs and other key stakeholders who serve CYSHCN and their families by implementing strategies in four critical areas: health equity, CYSHCN and family well-being and quality of life, access to services, and financing of services. PI: D. Cilenti, **K. Hassmiller Lich: Co-Investigator (10% effort)**. Total costs \$149,761.

#### **COMPLETED:**

**US Department of Transportation 69A3551747113 11/30/2016-09/30/2023**

*“Collaborative Sciences Center for Road Safety”*

The purpose of this project is for the University of North Carolina at Chapel Hill (UNC-CH) to lead the Collaborative Sciences Center for Road Safety. The Collaborative Sciences Center for Road Safety (CSCRS) will address the U.S. Department of Transportation’s (DOT) strategic goal of promoting safety as a National University Transportation Center. The CSCRS is a collaboration of leading road safety, planning, public health, and engineering programs and is led by the UNC Highway Safety Research Center (HSRC) in collaboration with the UNC Department of City and Regional Planning and the UNC Injury Prevention Research Center. The Center will achieve gains in transportation safety through cross-sectoral research using a systems approach and engagement with traditional transportation safety agencies and non-traditional partners such as planning departments and state and local health departments. PI: L. Sandt; **K. Hassmiller Lich: Co-Investigator (10% effort)**. Total direct costs \$2,147,800.

**National Institute on Minority Health and Health Disparities (R15 MD011502-01)**

**09/12/2018-06/30/2023**

*“Delineating Hispanic Immigrants’ Allostatic Load Dynamics through Systems Modeling”*

Based on complex systems methodologies, the goal of the proposed study is to delineate how complex and interacting social, immigration, health, and labor policies and work and non-work environments influence low-skill/-pay service-sector Latino immigrant workers’ excess allostatic load and associated syndemicity over time, and to identify high-leverage intervention points to reverse deteriorating trends. PI: S. Sonmez & Y. Apostolopoulos; **K. Hassmiller Lich: Co-Investigator, UNC Subcontract PI (10% effort)**. Total direct costs \$360,809.

**National Human Genome Research Institute (5-U01-HG006487-08) 06/01/2017-12/31/2022**

*“North Carolina Clinical Genomic Evaluation by Next-gen”*

The purpose of this project is to provide the necessary evidence base to convince payers to routinely cover the use of whole exome sequencing (WES) by bringing together a highly inter-disciplinary team to conduct a randomized clinical trial to study healthcare outcomes and communication among patients, family members, clinicians, and laboratorians. Moreover, the project will address these issues in traditionally disadvantaged populations to ensure that the benefits of genomic medicine will accrue to the broadest possible segment of the population. PI: J. Berg; **K. Hassmiller Lich: Co-Investigator (15% effort)**. Total direct costs \$2,748,319.

**NC TraCS pilot (Patel and Swann)**

**Centers for Disease Control (NU38OT000297-02-00) 10/01/2020-07/31/2021**

*“Integrated Systems Model to Inform State and Local Level Planning for the COVID-19 Pandemic”*

The goal of this project is to use computer simulation to integrate data and inform decision making at local and state levels to control the spread of SARS-CoV2. We are conducting interviews with cross-sector

decision makers across the state of NC and US, and working with them to support effective communication of model-based insights. PI: J. Swann; **K. Hassmiller Lich: Site PI, Co-Investigator (10% effort)**. Total costs \$467,217.

**NC Div of Public Health (Contract # 00040936)**

**09/01/20-07/31/21**

*“Applying Systems Thinking to ACEs and Suicide Prevention in a Remote Environment”*

A Centers for Disease Control and Prevention-funded project in response to COVID-19. The project examines how adverse childhood experiences (ACEs) and suicide prevention can be adapted to meet evolving community needs during the current pandemic and future disasters. The project demonstrates how to leverage systems thinking approaches to begin or advance prevention and response initiatives related to population health issues, such as ACEs and suicide. PI: B. Young; **K. Hassmiller Lich: Consultant (2 weeks)**. Total costs \$173,913.

**NC Div of Public Health (Contract #00040253)**

**08/01/20-07/31/21**

*“Systems Thinking National Peer Learning Team and Southeastern and Southwestern Injury Prevention Network”*

The purpose of the Centers for Disease Control and Prevention’s injury prevention network hubs is to regionally coordinate with injury and violence prevention organizations in specific regions of the country to share scientific evidence and injury prevention program best practices. The hubs also house National Peer Learning Teams to connect partners across the country in learning about a specific topic area related to injury prevention and identify areas for high-leverage solutions. The Southeastern and Southwestern National Peer Learning Team is focused on systems thinking best practices for injury prevention work. PI: B. Young; **K. Hassmiller Lich: Consultant (2 weeks)**. Total direct costs \$x.

**CSCRS Project R21 (No #)**

**08/01/19 – 3/31/21**

*“A Systems Approach to Pedestrian Safety, Phase II: Examining Congestion Pricing Policies”*

The goal of this project is to develop a system dynamics simulation model that can be used as a learning tool to explore the pedestrian safety impacts of specific, current policy approaches. Given the recent focus and proposed implementation of congestion pricing policies in the U.S., we will specifically explore the pedestrian safety impacts of these policies, illustrating how system dynamics tools can be used to create virtual learning environments and explore potential system-wide effects of policies prior to implementation. PI: B. Naumann; **K. Hassmiller Lich: Co-investigator (10% effort)**. Total costs \$96,942

**US Department of Health and Human Services Office of Population Affairs (37223.2017.0001)**

**09/01/2016-08/31/2020**

*“Family Planning National Training Center for Service Delivery Improvement”*

This Center is funded to support training and technical assistance for Federal recipients of Title X grants, who are supporting population-level family planning. I engaged diverse national leaders comprising the FPNTC’s Leadership Council using systems thinking methods in support of Title X sustainability planning. I used and taught systems thinking to cohorts of Title X grantee-led local Strategic Area Teams seeking to grow local collaborations and strategic planning to support their financial sustainability. PI: R Webb, JSI Research and Training Institute; UNC Co-PIs: B Peterson and **K Hassmiller Lich (40% effort)**. Total direct cost \$3,843,954.

**Bill and Melinda Gates Foundation (OPP1142921)**

**3/01/2016-02/28/2019**

*“Family Planning Country Action Process Evaluation”*

The Family Planning Country Action Process Evaluation (FP CAPE), a Bill and Melinda Gates Foundation (BMGF) funded project, conducts process evaluation research related to BMGF family planning portfolios in the Democratic Republic of Congo (DRC) and Nigeria. FP CAPE seeks to generate evidence on how and why each portfolio of investments is or is not driving change in key outcomes, most notably modern contraceptive use, across geographies and the role of context in shaping these outcomes to inform programmatic decisions and future investment strategies for family planning in the DRC and Nigeria. PI: S Curtis; **K Hassmiller Lich: Co-investigator (10% effort)**. Total direct cost: \$4,090,908.

**Centers for Disease Control and Prevention (CDC) SIP-14-010 (5-U48-DP005017-03)  
09/30/15-09/29/17**

*“Special Interest Project: Colorectal cancer screening in underserved communities in NC”*

This project extends a completed CDC Special Interest Project with the same title, seeking to inform local, state, and national efforts to improve colorectal cancer screening practices, programs, and policies and to inform health targets. We will update and use the simulation model developed in that grant to estimate the impact of Health Care Reform on colorectal cancer outcomes. PI: S Wheeler; **K Hassmiller Lich: Co-investigator (9% and 6% in years 1 and 2)**. Total direct cost \$300,000.

**Patient Centered Outcomes Research Institute (PCORI; RES508126 / RES511293) 6/15/13-6/14/17**

*“Patient-Identified Personal Strengths (PIPS) vs. Deficit-Focused Models of Care”*

We hypothesize that focusing care on patient strengths can result in better patient-centered outcomes by motivating positive change and engaging patient resources in ways that the usual deficit-based model of care cannot. Therefore, we aim to: 1. Identify patient-identified personal strengths relevant to illness management. 2. Develop a strength-focused computer-supported Interactive Tailored Patient Assessment Tool. 3. Engage diverse patients, caregivers and primary care clinicians in identifying mechanisms by which leveraging patient-identified personal strengths in different ways might affect the processes and patient-centered outcomes of health care. 4. Quantitatively simulate the effect of alternate approaches to leveraging patient-identified personal strengths in practice on patient-oriented outcomes and provider resources compared to usual deficit/symptom-focused care. PI: K Stange; **K Hassmiller Lich: Co-investigator and PI on UNC Subcontract (11%, 25% and 27% effort in years 1, 2, and 3 respectively)**. Total direct costs in UNC subcontract \$271,825.

**North Carolina Alliance of Public Health Agencies (NCAPHA; no #) 04/15/2016-05/15/2017**

*“NC Public Health Alliance Return on Investment (ROI)/Program Investment Project”*

Funded by the NC Alliance for Public Health Agencies, this project develops an economic model to calculate hospital-related cost savings associated with low birth weight and preterm babies that result from local health department programs intended to address related risk factors. PI: J Graham; **K Hassmiller Lich: Co-PI (4% effort)**. Total direct cost \$95,084.

**IPA with the Indianapolis VA Veteran’s Engineering Resource Center (no #) 7/1/11-9/30/14**

Through this IPA, I will continue to adapt and use the Stroke System Dynamics model developed through previous VA rapid response projects. Specifically, we will extend the sensitivity analysis conducted with the model to assess the robustness of policy conclusions to uncertainty in model inputs and identify research priorities. I will facilitate a day-long workshop using the model to serve as the foundation for discussion about how best to re-engineer systems of stroke care with national VA Operations staff. Lastly, we will transition the aggregate System Dynamics model to an individual-based (agent-based) model to support subsequent investigation of optimal targeted prevention programs for the Stroke QUERI. PI: **K Hassmiller Lich (20% effort)**. Total direct cost covers 20% effort over project period plus PI on a supplemental \$100,000 project I led, with payment dispersed to collaborating university through subcontracts directly from VA. Total direct costs to UNC \$158,642.

**Centers for Disease Control and Prevention (CDC-SIP-11-041; no number)9/30/11-9/29/14**

*Special Interest Proj “Colorectal cancer screening in underserved communities in North Carolina”*

The specific aims of the study are: (1) To use state cancer registry-linked-insurance claims data from Medicaid and Medicare to identify underserved areas in North Carolina with relatively low CRC screening rates and high CRC mortality, and to examine characteristics of unscreened individuals in these regions; (2) To elicit preferences and understand barriers related to CRC screening in underserved communities (from Aim 1) from the patient perspective; and, (3) To use decision modeling techniques to compare the

effectiveness and feasibility of different strategies for increasing screening in underserved sub-populations from the health system/provider perspective.

PIs: SB Wheeler, MP Pignone; **K Hassmiller Lich: Co-investigator** (co-I on all aims, and leading aim 3; 19%, 25%, and 21% effort in years 1, 2, and 3 respectively). Total direct costs \$829,294.

**North Carolina Translational & Clinical Sciences Institute Pilot Grant (no #) 3/1/12-10/31/13**

*“Using Systems Science Methods to Improve Colorectal Cancer Screening in North Carolina”* Description: In this project we adapt a national (US) colorectal cancer screening model, developed by co-investigators at RTI International, to the North Carolina context. We will use the agent-based model to address the knowledge gap around the relative impact of alternate intervention/policy scenarios targeted at disadvantaged subpopulations of North Carolina residents. Specifically, we will leverage: 1) an existing and well-validated decision-support model; 2) data sources from the new Integrated Cancer Information and Surveillance System (ICISS), which contain population-based cancer and health utilization data from NC; 3) RTI-developed synthetic population data; and 4) a multi-disciplinary local research community of internationally renowned colorectal cancer researchers to adapt, recalibrate, and validate the model. We will use the model to inform local and state policy decision making as well as ongoing research around colorectal cancer occurring at UNC and RTI. The team includes a multidisciplinary group of researchers including modelers, economists, cancer specialists, programmers and analysts from both institutions.

**PI:** K Hassmiller Lich (10% effort in kind for pilot grant) **and G. Bobashev**, Total direct cost \$50,000.

**University Cancer Research Fund Health-E-NC Pilot Grant (no number) 1/1/11-12/31/11**

*“Meeting the needs of cancer survivors in North Carolina: Assessing and improving the Medicaid medical home model”*

In this pilot project, I supported the team in facilitating discussions with system stakeholders about how best to leverage the Community Care of North Carolina Medicaid Medical Home Model to improve care for breast cancer survivors transitioning back to primary care. We combined data analysis with stakeholder engagement to identify gaps in care and opportunities to bolster best practices. PI: Stephanie Wheeler; **K Hassmiller Lich: Co-Investigator (5% effort in kind for pilot grant)**. Total direct cost \$60,885.

**University of North Carolina Gillings Innovation Lab (no number) 8/1/08-7/31/11**

*“Linking Data to Improve Disease Management”*

My role on this project was to support a team in analyzing population-level, real-time emergency department data to inform asthma prevention and control efforts across the state of North Carolina. PI: David Richardson; **K Hassmiller Lich: Co-investigator (5% effort paid+5% effort in kind while clinical scholar)**. Total direct cost \$564,592.

**University of North Carolina Gillings Innovation Lab (no number) 7/1/08-6/30/11**

*“Gillings Innovation Lab for Mental Health System Improvement”*

The purpose of this project was to use systems science methods in collaboration with system stakeholders to identify targets for improving the mental health service system in North Carolina, to develop a comprehensive understanding of how adults in psychiatric crisis flow through systems of care, and to identify capacity needs and recommendations for system improvement.

PI: Joseph Morrissey; **K Hassmiller Lich: Co-PI (5-10% effort paid+20% effort in kind while clinical scholar)**. Total direct cost \$400,000.

**Department of Veterans Affairs RRP 09-146 (no number) 5/1/10-4/30/11**

*“Using System Dynamics Tools to Integrate Evidence into VA Stroke Care, round 2”*

In this extension of an earlier VA grant (see below), we continued to iterate the System Dynamics Decision Support model to inform strategic planning of the Stroke Quality Enhancement Research Initiative. VA PI: Hayden Bosworth; **K Hassmiller Lich: Co-PI (20% effort in kind while clinical scholar)**. Total direct cost \$100,000.

**University of North Carolina KL2 RR025746 (no number) 7/1/08-4/30/11**

*“UNC Clinical Translation Science Award – K12 Scholars Program (KL2).”*

I framed this mentored career development award to increase my exposure to real-world clinical realities

needed to enhance decision support models as well as to gain skills in stakeholder engaged research methods. PI: Pisano; **K Hassmiller Lich: Scholar (75% effort)**. Total direct cost of \$2,090,864.

**Department of Veterans Affairs RRP 08-250 (no number) 6/1/08-11/31/10**

*“Using System Dynamics Tools to Integrate Evidence into VA Stroke Care”*

In the Veterans Administration (VA), a national accountable care organization, it is difficult to know how to allocate limited resources to best support the health of the Veteran population. Charged with guiding the prioritization of research and practice-based improvement efforts, I led a team working with the Stroke Quality Enhancement Research Initiative (QUERI) that turned to system dynamics modeling to first shape and then estimate the relative impact of alternate intervention scenarios for translating best evidence into practice VA-wide would have on the quality of life of Veterans. VA PI: Hayden Bosworth; **K Hassmiller Lich: Co-PI (15% effort in kind)**. Total direct cost \$75,000.

**University of Michigan Tobacco Research Network Grant (no number) 9/2005-8/2007**

*“The Impact of Smoking on Population-Level Tuberculosis Dynamics and Policy Implications.”*

This grant supported the completion of my dissertation research in which I modeled the intersection of tobacco and tuberculosis epidemics and analyzed policy implications.

Faculty sponsor: David Mendez; **K Hassmiller: Lead investigator (100% effort)**. Total direct cost \$40,000.

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**PROFESSIONAL SERVICE**

**DEPARTMENTAL LEVEL**

Tenure Track search committee (2 positions), Member, 2022

PhD Advisory Committee, Member, 2019-present

Lead the Decision Science and Outcomes Research PhD Minor, 2019-present

Global Health Working Group, Member, 2008-2017

**SCHOOL LEVEL**

Search Committee for Chair of Health Policy and Management, 2023

Search Committee for Chair of Health Policy and Management, 2015

**UNIVERSITY LEVEL**

None to date

**NATIONAL AND INTERNATIONAL LEVELS**

Systems Core Lead of the HRSA-funded National Maternal and Child Health

Workforce Development Center, 2013-present

Co-Chair (with Liz La): Modeling subgroup of the American Psychiatric Association Presidential Task Force on Assessment of Psychiatric Bed Needs, 2020-2021

**Journal refereeing, 2006-present**

*American Journal of Public Health, Nicotine and Tobacco Research, Social Science & Medicine, Theoretical Population Biology, Administration and Policy in Mental Health and Mental Health Services Research, The American Journal of Managed Care, Journal of Applied Economics and Policy.*

Member of NIH Ad Hoc Review Panel: Using Systems Science Methodologies to Protect and Improve Population Health (R21, PAR-08-224). January 2009, June 2009.

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**PRACTICE**

I have been invited to give numerous lectures about the value and role of systems science methods in public health research, practice, policy, and implementation research at the Centers for Disease Control and Prevention, National Institutes of Health (NIH), Veterans Affairs (VA), US Health Resources & Services Administration (HRSA) and various national and international conferences and public health workforce

development initiatives. In addition, I have published numerous manuscripts seeking to introduce these methods and demonstrate their value to emerging or established fields and have co-edited a broad and integrative text entitled “Complex Systems and Population Health: A primer” (2020, Oxford University Press). I have reviewed abstracts for systems science sessions at the Society for Prevention Research repeatedly, and have reviewed Systems Scholars for AcademyHealth in 2016 and 2017. I participated on an expert panel on best practices for proposing the use of systems science methods in NIH-funded research (2016).