

# Leah Frerichs, PhD

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## PERSONAL

### *Research Interests*

- Integration of engaged and participatory research with systems thinking and systems science
- Social and physical environment influences on obesity and obesity-related health behaviors
- System influences on health and wellness in underserved communities
- Simulation modeling and network analysis
- Technology-based research and intervention
- American Indian health disparities and health policy

### *Teaching Interests*

- Engaged and participatory research
- Mixed methods research
- Network analysis and simulation methods for integrating and analyzing complex data
- Program planning and evaluation

## EDUCATION

- 2014                      Ph.D., University of Nebraska Medical Center, Omaha, NE  
Health Promotion and Disease Prevention Research  
Dissertation: Architecture and design for healthy eating in schools
- 2005                      M.S., University of Iowa, Iowa City, IA  
Community and Behavioral Health
- 2003                      B.S., Iowa State University, Ames, IA  
Community Health Education

## PROFESSIONAL EXPERIENCE

- 2016 – present            Assistant Professor  
**Department of Health Policy and Management**  
**School of Public Health, University of North Carolina** (Chapel Hill, NC)
- 2014 – 2016                Postdoctoral Research Associate  
**Center for Health Equity Research, University of North Carolina** (Chapel Hill, NC)
- 2010 – 2014                Graduate Research Assistant  
**University of Nebraska Medical Center, College of Public Health,**  
**Department of Health Promotion, Social & Behavioral Health** (Omaha, NE)

- 2010 – 2013 Graduate Teaching Assistant  
**University of Nebraska Medical Center, College of Public Health, Department of Health Promotion, Social & Behavioral Health** (Omaha, NE)
- 2005 – 2010 Program Manager  
**Aberdeen Area Tribal Chairmen’s Health Board, Northern Plains Comprehensive Cancer Control Program** (Rapid City, SD)
- 2004 – 2005 Graduate Teaching Assistant  
**University of Iowa, College of Public Health, Department of Community and Behavioral Health** (Iowa City, IA)
- 2003 – 2005 Graduate Research Assistant  
**University of Iowa, College of Public Health, Department of Community and Behavioral Health** (Iowa City, IA)

**HONORS**

- 2017-2019 Fellow, Mentored Training for Dissemination and Implementation in Research in Cancer. National Cancer Institute. St. Louis, MO.
- 2016 Systems Science Scholar, AcademyHealth
- 2016 Cancer Outcomes Research Program Travel Award, Lineberger Comprehensive Cancer Center
- 2013-2014 UNMC Graduate Studies Fellowship
- 2012 Carruth J. Wagner, MD, Scholarship in Public Health
- 2009-2010 Scholar, Great Plains Public Health Leadership Institute
- 2006 Health Communication Thesis Award, International/National Communication Association
- 2006 Milford E. Barnes Award Recipient, University of Iowa

**MEMBERSHIPS**

- 2015-present AcademyHealth
- 2015-present Society of Public Health Educators
- 2013-present The System Dynamics Society
- 2013-present American Public Health Association
- 2012-present The Obesity Society

## **BIBLIOGRAPHY**

### **Book Chapters**

1. **Frerichs, L.**, Smith, N. (2020) Designing population health research grounded in complex systems science. In Y. Apostolopoulos, K. Hassmiller Lich, & M.K. Lemke, *Complex Systems and Population Health A Primer* (pp. 93-105). New York, NY: Oxford University Press.

### **Peer-Reviewed Publications (Total=54, First Author=27, Senior Author=3)**

†Indicates student/trainee

\*Indicates shared first authorship

1. Smith, N.,† Zivich, P.,† **Frerichs, L.**, Moody, J., Aiello, A. (In Press) A guide for choosing community detection algorithms in social network studies: The Question-Alignment approach. *American Journal of Preventive Medicine*, approx. p. 1-26.
2. Smith, N.,† Grummon, A., **Frerichs, L.** (In Press) Demographic groups likely affected by regulating sugar-sweetened beverage portion sizes. *American Journal of Preventive Medicine*, approx. p. 1-20.
3. **Frerichs, L.**, Beasley, C., Pevia, K., Lowery, J., Ferrari, R., Bell, R., Reuland, D. (In Press) Testing a culturally adapted colorectal cancer screening decision aid among American Indians: results from a pre-post trial. *Health Equity*, approx. p. 1-20.
4. Pasquale, E., Neshteruk, C., Howard, J., Skinner, A., Story, M., **Frerichs, L.**, Armstrong, S. (In Press) An Integrated Clinic-Community Model to Treat Childhood Obesity: Revisiting Two Years Later. *Clinical Pediatrics*, approx. p. 1-12.
5. Smith, N.,† Zivich, P.,† **Frerichs, L.** (2020) Social influences on obesity: current knowledge, emerging methods, and directions for future research and practice, *Current Nutrition Reports*, 9: p. 31-41.
6. Powell, W.\* , **Frerichs, L.\***, Townsley, R., Mayorga, M., Richmond, J., Corbie-Smith, G., Wheeler, S., Hassmiller Lich, K. (2020) The potential impact of the Affordable Care Act and Medicaid expansion on reducing colorectal cancer screening disparities in African American males. *PLOS ONE*, 15(1): e0226942.
7. **Frerichs, L.**, Bess, K.,† Young, TL, Hoover, S., Calancie, L., Wynn, M., McFarlin, S., Cene, C., Dave, G., Corbie-Smith, C. (In Press) A cluster randomized trial of a community-based lifestyle behavior change intervention among rural African American adults: effects on dietary and physical activity behaviors, self-efficacy, and social support. *Prevention Science*, Approx. p. 1-33.
8. Hassmiller Lich, K., O’Leary, M., Nambiar, S., Townsley, R., Mayorga, M., Hicklin, K., **Frerichs, L.**, Shafer, P., Davis, M., Wheeler, S. (2019) Estimating the impact of insurance expansion on colorectal cancer and related costs in North Carolina: a population-level simulation analysis. *Preventive Medicine*, 129S, 105847.
9. Grummon, A.† Smith, N.†, Golden, S., **Frerichs, L.**, Smith Taillie, L., Brewer, N. (2019) Health Warnings on Sugar-Sweetened Beverages: Simulation of Impacts on Diet and Obesity Among U.S. Adults. *American Journal of Preventive Medicine*, 57(6): 765-774.

10. Blette, B., † Green Howard, A., **Frerichs, L.** (2019) High School Physical Activity and Nutrition Policy: Summarizing Changes Over Time Using Latent Class Analysis. *American Journal of Preventive Medicine*, 57(3): e69-e76.
11. Bess, K., † **Frerichs, L.**, Young, T., Corbie-Smith, G., Dave, G. Davis, K., McFarlin, S, Watson, S., Wynn, M., Wiley-Cene, C. (2019) Adaptation of an evidence-based intervention to improve cardiovascular health among African Americans in the rural southeast using intervention mapping and a community based participatory research approach. *Progress in Community Health Partnerships*, 13(4): 385-396.
12. **Frerichs, L.**, Bell, R., Hassmiller Lich, K., Reuland, D., Warne, D. (2019) Regional differences across the US in health insurance coverage among American Indians and Alaska Natives before and after the implementation of the Affordable Care Act. *Health Affairs*, 38(9): 1542-1549.
13. Young, T.L., Carter-Edwards L., **Frerichs, L.**, Green, M., Hassmiller-Lich, K., Quarles, E., Dave, G., Corbie-Smith, G. (2019) Action learning cohort series: an innovative community-engaged approach for translating research into practice. *Health Promotion Practice*, p 1-9. doi:10.1177/1524839919858592
14. **Frerichs, L.**, Araz, O., Calancie, L., Huang, TTK, Hassmiller Lich, K. (2019) Dynamic empirically-based model for understanding future trends in US obesity prevalence in the context of social influences. *Obesity*, 1-27. doi:10.1002/oby.22580.
15. **Frerichs, L.** Bell, R., Hassmiller Lich, K., Reuland, D., Warne, D. (2019) Health insurance coverage among American Indians and Alaska Natives in the context of the Affordable Care Act. *Ethnicity & Health*, p. 1-16. doi: 10.1080/13557858.2019.1625873.
16. Cené, C., **Frerichs, L.**, Evans, J., Kroenke, C., Dilworth-Anderson, P., Corbie-Smith, G., Snively, B., Naughton, M., Shumaker, S. (2019) Feasibility and acceptability of collecting social network data among women in the Women's Health Initiative Study: Promise or a pitfall? *Journal of Aging Research*, 1-29.
17. **Frerichs, L.**, Smith, N., † Hassmiller Lich, K., BenDor, T., Evenson, K. (2019) A scoping review of simulation modeling in built environment and physical activity research: current status, gaps, and future directions for improving translation. *Health & Place*, 57: 122-130.
18. Anderson, S., † **Frerichs, L.**, Kaysin, A., Wheeler, S., Tucker Halper, C., Hassmiller Lich, K. (2019) Effects of two educational posters' on contraceptive knowledge and intentions: A randomized controlled trial. *Obstetrics & Gynecology*, 133(1): 53-62. doi: 10.1097/AOG.0000000000003012.
19. Kim, M, Cheney, A., Black, A., Thorpe, RJ, Cene, C.D., Dave, G.J., Schall, J., Vassar, S., Ruktanonchai, C., **Frerichs, L.**, Young, T., Jones, J., Burke, J., Varma, D., Striley, C., Cottler, L., Brown, A., Sullivan, G., Corbie-Smith, G. (2019) Trust in Community-Engaged Research Partnerships: A Methodological Overview of Designing a Multisite Clinical and Translational Science Awards (CTSA) Initiative. *Evaluation & the Health Professions*, doi: 10.1177/0163278718819719. [Epub ahead of print].
20. **Frerichs, L.**, Smith, N., † Hoffman, J., Gaskin, K., Skinner, A., Armstrong, S. (2018) Weight-related quality of life and temperament as predictors and moderators of outcomes among treatment-seeking low-income, ethnically diverse children with obesity. *Translational Behavioral Medicine*, XX:XX-XX. doi:10.1093/tbm/iby115.

21. **Frerichs, L.**, Young, T.L., Dave, G., Stith, D., Corbie-Smith, G., Hassmiller Lich, K. (2018) Mind maps and network analysis to evaluate conceptualization of complex issues: a case example evaluating systems science workshops for childhood obesity prevention. *Evaluation and Program Planning*, <https://doi.org/10.1016/j.evalprogplan.2018.03.003>.
22. Anderson, S., † Barry, M., **Frerichs, L.**, Wheeler, S., Tucker Halpern, C., Kaysin, A, Hassmiller Lich, K. (2018) Cognitive interviews to improve a patient-centered contraceptive effectiveness poster. *Contraception*, 98(6); 528-534.
23. Dave, G., **Frerichs, L.**, Jones, J., Kim, M., Schaal, J., Vassar, S., Varma, D., Striley, C., Ruktanonchai, C., Black, A., Hankins, J., Lovelady, N., Cene, C., Green, M., Young, T., Tiwari, S., Cheney, A., Cottler, L., Sullivan, G., Brown, A., Burke, J., Corbie-Smith, G. (2018) Conceptualizing trust in community-academic research partnerships using concept mapping approach: a multi-CTSA study, *Evaluation and Program Planning*. 66: 70-78.
24. **Frerichs, L.**, Rhode, J., † Bell, R., Brooks, M., Beasley, C., Reuland, D. (2018) Perspectives of American Indians in Eastern North Carolina on socio-cultural factors that influence colorectal cancer screening decisions. *Journal of Healthcare for the Poor and Underserved*. 29:723-742.
25. Hoffman, J., † **Frerichs, L.** Story, M., Jones, J., Gaskin, K., Apple, A., Skinner, A., Armstrong, S. (2018) An integrated clinic-community partnership for child obesity treatment: A randomized pilot trial. *Pediatrics*. 141(1):e20171444.
26. Brittin, J., Araz, O., **Frerichs, L.**, Elijah-Barnwell, S., Huang, T. (2017) Complex systems thinking and multi-criteria decision modeling for outcomes-oriented building projects: Methodology and an illustration. *Journal of Architectural and Planning Research*. 34: 192-215.
27. Andrews, M., † Sawyer, C., Hoffman, J., **Frerichs, L.**, Cockrell Skinner, A., Armstrong, S. (2017) The feasibility of a partnership between a clinical weight management program and Parks and Recreation to treat childhood obesity. *Clinical Pediatrics*, [doi.org/10.1177/0009922817734359](https://doi.org/10.1177/0009922817734359).
28. Brittin, J., **Frerichs, L.**, Sirard, J., Wells, N., Myers, B., Garcia, J., Sorensen, D., Trowbridge, M., Huang, TTK. (2017) Impact of active school design on school-time sedentary behavior and physical activity: a pilot longitudinal study. *PLOS One*, published online: <https://doi.org/10.1371/journal.pone.0189236>.
29. **Frerichs, L.**, Hassmiller, K., Young, T.L., Dave, G., Stith, D., Corbie-Smith, G. (2017) Development of systems science methods to engage rural African American teens in understanding and addressing childhood obesity prevention. *Health Education and Behavior*. doi: 10.1177/1090198117726570.
30. Hassmiller, K., Brown Urban, J., **Frerichs, L.**, Gaurav, D., Chall, S. (2017) Extending systems thinking in planning and evaluation using group concept mapping and system dynamics to tackle complex problems. *Evaluation and Program Planning*. 60: 254-264. doi: 10.1016/j.evalprogplan.2016.10.008.
31. **Frerichs, L.**, Brittin, J., Trowbridge, M., Sorensen, D., Kaufman, K., Intolubbe-Chmil, L., Huang, T. (2016) Visual research on student perceptions of and relationship to the school health environment. *Children, Youth & Environments*. 26(2): 83-109.

- 32. Frerichs, L., Ataga, O.†, Corbie-Smith, G., Lindau, S. (2016)** Child and youth participatory interventions for addressing lifestyle-related childhood obesity: a systematic review. *Obesity Reviews*. doi: 10.1111/obr.12468
- 33. Frerichs, L., Hassmiller Lich, K., Funchess, M., Burrell, M., Cerulli, C., Bidell, P., White, AM. (2016)** Applying critical race theory to group model-building methods to address community violence. *Progress in Community Health Partnerships*. 10(3): 443-459.
- 34. Frerichs, L., Kim, M., Dave, G., Cheney, A., Hassmiller Lich, K., Jones, J., Young, T., Wiley Cene, C., Varma, D., Schaal, J., Black, A, Striley, C., Vassar, S., Sullivan, G., Cottler, L., Brown, A., Burke, J., Corbie-Smith, G. (2016)** Stakeholder perspectives on creating and maintaining trust in community-academic research partnerships. *Health Education & Behavior*. 1-10. doi: 10.1177/1090198116648291.
- 35. Hassmiller Lich, K., Frerichs, L., Fishbein, D., Bobashev, G., Pentz, M.A. (2016)** Translating research into prevention of high-risk behaviors in the presence of complex systems: Definitions and systems frameworks. *Translational Behavioral Medicine*. 6(1):17-31.
- 36. Frerichs, L., Brittin, J., Trowbridge, M., Kaufman, K., Intolubbe-Chmil, L., Huang, T. (2016)** Children's discourse of liked, healthy, and unhealthy foods. *Journal of the Academy of Nutrition and Dietetics*. 116(8):1323-1331. doi: 10.1016/j.jand.2016.01.014.
- 37. Frerichs, L., Hassmiller Lich, K., Dave, G., Corbie-Smith, G. (2016)** Integrating systems science and community based participatory research – an approach to achieve health equity. *American Journal of Public Health*. 106(2):215-22.
- 38. Frerichs, L., Brittin, J., Intolubbe-Chmil, L., Trowbridge, M., Sorensen, D., Huang, TTK. (2016)** The role of school design in shaping healthy eating-related attitudes, practices, and behaviors among school staff. *Journal of School Health*. 86(1):11-22. doi: 10.1111/josh.12347.
- 39. Frerichs, L., Sjolie, S., Curtis, M., Peterson, M. Huang, TTK. (2015)** Process and outcomes from a youth-led campaign to address healthy eating in an urban high school. *Journal of Primary Prevention*. 36(6): 433-438.
- 40. Huang, TTK, Cawley, J., Ashe, M., Costa, S., Frerichs, L., Zwicker, L., Rivera JA., Levy, D., Hammond, R., Lambert, E., Kumanyika, S. (2015).** Mobilising Policy Action for Obesity Prevention. *Lancet*. doi: 10.1016/S0140-6736(14)61743-8.
- 41. Frerichs, L., Brittin, J., Sorensen, D., Trowbridge, M., Yaroch, A., Siahpush, M., Tibbits, M., Huang, TTK. (2015).** Influence of school architecture and design on healthy eating: a review of the evidence. *American Journal of Public Health*. doi: 10.2105/AJPH.2014.302453.
- 42. Brittin, J., Sorensen, D., Trowbridge, M., Lee, K., Breithecker, D., Frerichs, L., Huang, TTK. (2015).** Physical activity design guidelines for school architecture. *PLOS ONE*. 10(7): e0132597. doi:10.1371/journal.pone.0132597.
- 43. Frerichs, L., Brittin, J., Robbins, R., Steenson, S., Stewart, C., Fisher, C., Huang, T. (2015).** SaludableOmaha: Improving readiness to address childhood obesity in a midwestern Latino community.

*Preventing Chronic Disease*. 12:140328.

44. Perin, D., **Frerichs, L.**, Costa, S., Ramirez, A.G., Huang, TTK. (2014). Perceptions of childhood obesity and support for prevention policies among Latinos and Whites. *Journal of Obesity*. doi: <http://dx.doi.org/10.1155/2014/328276>.
45. Chen, D.R., **Frerichs, L.** (2014). Gender, social origins, and accumulated disadvantages associated with mid-life body weight in Taiwan. *Health*. 6(18):2399-2407. doi: 10.4236/health.2014.618276.
46. **Frerichs, L.**, Huang, TTK., Chen, D.R. (2014). Associations of subjective social status with physical activity and body mass index across four Asian countries. *Journal of Obesity*. doi: <http://dx.doi.org/10.1155/2014/710602>.
47. **Frerichs, L.**, Araz, O., Huang, TTK. (2013) Modeling social transmission dynamics of unhealthy behaviors for evaluating prevention and treatment interventions on childhood obesity. *PLOS ONE*. doi: 10.1371/journal.pone.0082887.
48. Schmidt-Grimminger, D., **Frerichs, L.**, Watanabe-Galloway, S., Black Bird, A., Workman, K. (2013). HPV knowledge, attitudes, and beliefs among Northern Plains American Indian adolescents, parents, young adults, and health professionals. *Journal of Cancer Education*. 28(2):357-66. doi: 10.1007/s13187-013-0468-y.
49. Huang, TTK., Sorenson, D., Davis, S., **Frerichs, L.**, Brittin, J., Celentano, J., Callahan, K., Trowbridge, M. (2013). Healthy eating design guidelines for school architecture. *Preventing Chronic Disease*. 2013;10:120084. doi: <http://dx.doi.org/10.5888/pcd10.120084>
50. **Frerichs, L.**, Brittin, J., Stewart, C., Robbins, R., Riggs, C., Mayberger, S., Cervantes, A., Huang, TTK. (2012). SaludableOmaha: development of a youth advocacy initiative to increase community readiness for obesity prevention, 2011-2012. *Preventing Chronic Disease*. 9:120095. doi: <http://dx.doi.org/10.5888/pcd9.12009>.
51. **Frerichs, L.**, Puricelli Perin, D., Huang, TTK. (2012). Current trends in childhood obesity research. *Current Nutrition Reports*. 1(4): 228-238.
52. **Frerichs, L.**, Schumacher, K., Watanabe-Galloway, S., Duran, T. (2012). Development of the Northern Plains Native family cancer caregiver education program. *Journal of Palliative Care*. 28(1): 52-59.
53. Watanabe-Galloway, S., Flom, N., Xu, L., Duran, T., **Frerichs, L.**, Kennedy, F., Smith, C., Jaiyeola, A. (2011). Cancer-related disparities and opportunities for intervention in Northern Plains American Indian communities. *Public Health Reports*. 126(3): 318-329.
54. **Frerichs, L.**, Andsager, J., Campo, S., Aquilino, M., Stewart-Dyer, C. (2006). Framing breastfeeding and formula-feeding messages in popular U.S. magazines. *Women & Health*. 44(1), p. 95-118.

**Peer-Reviewed Oral Presentations** (\*Indicates primary presenting author; †Indicates student/trainee)

1. Grummon, A.H., † Smith, N.R., Golden, S.D., **Frerichs, L.**, Taillie, L.S., & Brewer, N.T. (2019). Dietary and weight loss benefits of a national sugar-sweetened beverage health warning policy: A microsimulation analysis. Oral presentation scheduled for the American Society for Nutrition Annual Meeting, June 8-

11, Baltimore, MD.

2. **Frerichs, L.\*** Bell, R., Hassmiller Lich, K., Reuland, D., Warne, D. Impact of the Affordable Care Act provisions on healthcare insurance coverage among American Indians and Alaska Natives. American Public Health Association's Annual Meeting. November 10-14, 2018, San Diego, CA.
3. **Frerichs, L.,\*** Araz, O., Calancie, L., Huang, TTK, Hassmiller Lich, K. A dynamic age-structured model for understanding long-term trends in US obesity prevalence. International Conference of the System Dynamics Society. August 6-10, 2018, Reykjavik, Iceland.
4. **Frerichs, L.,\*** Powell, W., Townsley, R., Mayorga, M., Richmond, J., Corbie-Smith, G., Wheeler, S., Hassmiller Lich, K. The Potential Impact of the Affordable Care Act and Medicaid Expansion on Reducing Colorectal Cancer Screening Disparities in African American Males. *INFORMS*, October 22-25<sup>th</sup>, 2017, Houston, TX.
5. Lyden, J.,<sup>†</sup> **Frerichs, L.**, Skinner, A., Armstrong, S. *The feasibility and effectiveness of delivering child obesity treatment in partnership with Parks and Recreation: A randomized pilot trial.* American Academy of Pediatrics National Conference, September 15-17<sup>th</sup>, 2017, Chicago, IL.
6. Lyden, J.,<sup>†</sup> **Frerichs, L.**, Gaskin, K., Andrews, M., Sawyer, C., Armstrong, S. *A novel healthcare-community partnership for childhood obesity treatment: Baseline characteristics and feasibility data.* American Academy of Pediatrics National Conference, October 22-25<sup>th</sup>, 2016, San Francisco, CA.
7. **Frerichs, L.,\*** Bell, R., Lowery, J., Brooks, M., Hunt, C., Tennant, C. Beasley, C., Reuland, D. *Perspectives of American Indians and their healthcare providers on factors that influence colorectal cancer screening.* National Native Health Research Conference, June 6<sup>th</sup>, 2016, Cherokee, NC.
8. Brittin, J., **Frerichs, L.** *A natural experiment of active school design impacts on sedentary behavior and physical activity.* Environmental Design Research Association Conference, May 21, 2016, Raleigh, NC.
9. **Frerichs, L.,\*** Hassmiller, K., Stith, D., Young, T., Dave, G., Corbie-Smith, G. *A youth-engaged systems science approach to address childhood obesity in a rural African American community.* Society for Public Health Education Annual Conference, April 1<sup>st</sup>, 2016, Charlotte, NC.
10. **Frerichs, L.,\*** Dave, G., Kim, M., Cheney, A., Sullivan, G., Varma, D., Cottler, L., Vassar, S., Brown, A., Jones, J., Burke, J., Schaal, J., Corbie-Smith, G. *Engaging stakeholders to determine factors of building and sustaining trust in community-engaged research partnerships.* Society of General Internal Medicine, April 24<sup>th</sup>, 2015, Toronto, Canada.
11. Hassmiller, K, White, AW., **Frerichs, L.**, Cilenti, D., Orton, S. *System dynamics group model building as a method for implementing collective impact.* University of Rochester Fall Research Conference – “growing the next generation of community-based researchers”, October 28<sup>th</sup>, 2014, Rochester, NY.
12. **Frerichs, L.\***, Araz, O., Huang, TTK. *Modeling social transmission dynamics of unhealthy behaviors for evaluating prevention and treatment interventions on childhood obesity.* The 31st International Conference of the System Dynamics Society, July 21<sup>st</sup>, 2013, Cambridge, MA.



13. Smith, C, Jaiyeola, A, Duran, T, Flom, N, **Frerichs, L**, Watanabe-Galloway S. *The Northern Plains Tribal Cancer Data Improvement Initiative (NPTCDI): Gaps and strategies to improve cancer data for Northern Plains Native Americans*. Third National Leadership Summit on Eliminating Racial and Ethnic Disparities in Health. Oral Presentation. February 26, 2009. National Harbor, MD.

**Peer-Reviewed Poster Presentations** (\*Indicates presenting author)

1. Smith, N.R., Mazzucca, S., Hall, M.G., Ng, S.W., and **Frerichs, L**. Identifying groups of policymakers with similar communication preferences to better tailor public health- and nutrition-related research communications. Poster presentation scheduled for the 2020 Interdisciplinary Association for Population Health Sciences annual meeting, Sept 20-Oct 2 (virtual due to COVID-19).
2. Smith, N.R., † **Frerichs, L**, Minyard, K., MacDonald Gibson, J., Hassmiller Lich, K. Bridging the research-to-policy gap using simulation modeling: Recommendations for building simulation models to support public health decision making. Poster presentation at the AcademyHealth Annual Research Meeting, June 2-4, 2019, Washington, D.C.
3. Smith, N., † **Frerichs, L**, Hassmiller Lich, K., Moody, J., Corbie-Smith, C., Aiello, A. Associations between college students' and their peers' physical activity using peer social network measures. Poster presentation at the Society of Behavioral Medicine Annual Conference, April 11-14<sup>th</sup>, 2018, New Orleans, LA.
4. **Frerichs, L.\***, Powell, W., Townsley, R., Mayorga, M., Corbie-Smith, G., Wheeler, S., Hassmiller Lich, K., The potential impact of the Affordable Care Act and Medicaid Expansion in North Carolina on reducing colorectal cancer screening disparities among African American males. Poster presentation at AcademyHealth Annual Research Meeting, June 25-27, 2017, New Orleans, LA.
5. Hoffman, J., † **Frerichs, L**, Skinner, A., & Armstrong, S. A novel healthcare-community partnership for childhood obesity treatment: a randomized pilot study Poster presented at: Pediatric Academic Societies Meeting, May, 2017, San Francisco, CA.
6. Dunlap, P., † **Frerichs, L**, Boone, B., McFarlin, S., Corbie-Smith, G. Using CBPR to understand local collaborations addressing CVD risk. Poster presentation at the Society of Behavioral Medicine Annual Meeting and Scientific Sessions, March 29-April 1<sup>st</sup>, San Diego, CA.
7. Lyden, J., † **Frerichs, L**, Gaskin, K., Watson, L., Andrews, M., Sawyer, C., & Armstrong, S. A novel healthcare-community partnership for childhood obesity treatment: Study design and methods Poster presented at: Academic Pediatric Association, Regional Conference, February, 2016, Charlottesville, VA.
8. Skinner, AC, Sawyer, C, Andrews, M, Lyden, J, Gaskin, K, **Frerichs, L**, Watson, L, Armstrong, S. *Integrated treatment of pediatric obesity: Bull City Healthy and Fit as a healthcare-community shared use model*. Poster presentation at ObesityWeek, November 2016, New Orleans.
9. **Frerichs, L.\***, Kim, M., Dave, G., Cheney, A., Hassmiller Lich, K., Young, T., Jones, J., Black, A., Wiley Cene, C., Schaal, J., Vassar, S., Varma D., Striley, C., Mihas, P., Brown, A., Cottler, L., Burke, J., Corbie Smith, G. *Similarities and differences in community, academic, and healthcare stakeholders' perspectives of important contributors to trust in research partnerships*. Poster presentation at the Society for General Internal Medicine Annual Meeting, April 23<sup>rd</sup>, 2015, Toronto, Canada.

10. **Frerichs, L.,\*** Brittin, J., Trowbridge, M., Sorensen, D., Kaufman, K., Intolubbe-Chmil, L., Huang, TTK. *Influence of architecture and design on elementary student perceptions of the school environment.* American Public Health Association, November 17-23, 2014, New Orleans, LA.
11. Brittin, J., Araz, O., Ramirez-Nafarrate, A., **Frerichs, L.,** Huang, TTK. *Agent based model of elementary school dynamic furniture intervention: impact on obesity and overweight outcomes.* Poster presentation at the Obesity Society Annual Conference, November 3-8, 2014, Boston, MA.
12. **Frerichs, L.,\*** Brittin, J., Trowbridge, M., Sorensen, D., Intolubbe-Chmil, L., Huang, TTK. *Influence of architecture and design on elementary school staff and student healthy eating.* Poster presentation at the Obesity Society Annual Conference, November 3-8, 2014, Boston, MA.
13. Brittin, J., Sorensen, D., **Frerichs, L.,** Trowbridge, M., Davis, S., Celetano, J., Callahan, K., Moje, R., Huang, TTK. *Physical Activity Design Guidelines for School Architecture.* Poster presentation at the Obesity Society Annual Conference, November 11-16, 2013, Atlanta, GA.
14. **Frerichs, L.,\*** Brittin, J., Trowbridge, M., Sorenson, D., Davis, S., Celentano, J., Callahan, K., Huang, TTK. *Healthy Eating Design Guidelines for School Architecture.* Poster Presentation at the College of Public Health Student Research Conference, November 30, 2012, Omaha, NE.
15. **Frerichs, L.,\*** Brittin, J., Trowbridge, M., Sorenson, D., Davis, S., Celentano, J., Callahan, K., Huang, TTK. *Healthy Eating Design Guidelines for School Architecture.* Poster Presentation at the Obesity Society Annual Conference, September 21-24, 2012, San Antonio, TX.
16. **Frerichs, L.** Stewart, C. Grimm, B. Mayberger, S. Calitz, C. Robbins, R. Cervantes, A. Huang, T. *Latino Youth Advocacy to Increase Community Readiness for Active Living and Childhood Obesity Prevention.* Poster Presentation at Active Living Research Conference, February 22-24, 2011, San Diego, CA.
17. **Frerichs, L.\*** Watanabe-Galloway, S. Duran, T. *Principles for building a regional program that aims to impact local tribal communities, a case study of the Northern Plains Comprehensive Cancer Control Program.* National Comprehensive Cancer Control Program Directors Meeting, April 14-17, 2009, Atlanta, GA.
18. **Frerichs, L.\*** Watanabe-Galloway, S. Duran, T. *Adapting and Implementing a Native American Cancer 101 Curriculum to Increase Northern Plains Cancer Coalition Member's Cancer Knowledge.* Poster Presentation at the National Comprehensive Cancer Control Program Directors Meeting, May 13-15, 2008, Atlanta, GA.
19. **Frerichs, L.\*** Watanabe-Galloway, S. Duran, T. *Building a Regional Coalition for a Native American Cancer Control Program: Lessons Learned.* Poster Presentation at the 19<sup>th</sup> Annual IHS Research Conference. June 4-7, 2007, Phoenix, AZ.

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## **TEACHING ACTIVITIES (PRIOR THREE YEARS)**

### **Full Courses**

2019 (Fall)                      Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.

- HPM 772 – Techniques for the Economic Evaluation of Health Care (3 hours) (required course for MSPH and Decision Science PhD programs, 34 students)
- 2019 (Summer) Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.
- HPM 969 - *Program Planning* (1 hour) (required course for DrPH program, 13 students)
- 2018 (Summer) Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.
- HPM 969 - *Program Planning* (1 hour) (required course for DrPH program, 12 students)
- 2018 (Summer) Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.
- HPM 611 - *Public Health in a Systems Context* (3 hours) (required course for executive MHA program, 35 students)
- 2017 (Summer) Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.
- HPM 969 - *Program Planning* (1 hour) (required course for DrPH program, 14 students)
- 2017 (Summer) Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.
- HPM 611 - *Public Health in a Systems Context* (3 hours) (required course for executive MHA program, 26 students)
- 2017 (Spring) Instructor, Department of Health Policy and Management, School of Public Health, University of North Carolina at Chapel Hill.
- HPM 611 - *Public Health in a Systems Context* (3 hours) (required course for executive MHA program, 24 students)

#### Invited Guest Lectures and Seminars

- *Advanced modeling techniques*. Guest lecture for Techniques for the Economic Evaluation of Health Care, HPM 772; November 29, 2018, University of North Carolina at Chapel Hill, NC.
- *Big data and public health informatics*. Guest lecture for Introduction to Public Health, SPHG 600; November 15, 2018, University of North Carolina at Chapel Hill, NC.
- *Systems thinking and multi-level interventions*. Guest lecture for Introduction to Public Health, SPHG 600; October 16, 2018, University of North Carolina at Chapel Hill, NC.
- *Complex systems and simulation modeling: the promise and peril*. Guest lecture for Introduction to Social Epidemiology, EPID 826; October 5, 2018, University of North Carolina at Chapel Hill, NC.
- *Complex systems and simulation modeling*. Guest lecture for Introduction to Biomedical and Health Informatics, EPID 890; November 8, 2017, University of North Carolina at Chapel Hill, Chapel Hill, NC.
- *Complex systems and simulation modeling*. Guest lecture for Introduction to Social Epidemiology, EPID 826; September 29, 2017, University of North Carolina at Chapel Hill, Chapel Hill, NC.

- *An introduction to systems science for public health*. Guest lecture for BSPH Capstone Course, HPM 697; April 6, 2017. University of North Carolina at Chapel Hill, NC.
- *Youth-engaged data science and mobile health analytics for obesity prevention*. Health Informatics Seminar Series. February 22, 2017. University of North Carolina at Chapel Hill, Chapel Hill, NC.
- *Complex systems and social networks*. Guest lecture for Introduction to Social Epidemiology, EPID 826; September 30, 2016, University of North Carolina at Chapel Hill, Chapel Hill, NC.
- *Caring for our communities: how colon cancer screening can save lives*. North Carolina Unity Conference, March 11, 2016, Raleigh, NC.

## **Graduate Advising**

### **Doctoral Dissertation Committee Chair**

- Amy Ising, Health Informatics, PhD, UNC; In progress, Estimated Completion Date: May 2022.
- Natalie Smith, Health Policy and Management, PhD, UNC; In progress, Estimated Completion Date: May 2021
- Jessica Link, Health Policy and Management, DrPH, UNC; *Evaluating perceptions of stroke care providers on how to improve stroke awareness campaigns*, Defended May 2020.
- Jason Rosenfeld, Health Policy and Management, DrPH, UNC; *Social capital and community health clubs in Haiti*, Defended May 2019.

### **Doctoral Dissertation Committee Member**

- Sam Baxter, Health Policy and Management, PhD, UNC; *Racial differences in cardiovascular health among young men: The role of residential segregation*, Estimated Completion Date: August 2020.
- Amber Haley, Health Policy and Management, PhD, UNC; *Social needs screening in community health centers: investigating implementation context, strategies, and outcomes*, Estimated Completion Date: December 2020.
- Mohamed Ismail, Health Policy and Management, DrPH, UNC; *Improving the care for people with diabetes in a free clinic setting*, Defended October 2019.
- Gracelyn Cruden, Health Policy and Management, PhD, UNC; *Group model building for evidence-based prevention program selection in North Carolina to prevent child maltreatment*, Defended May 2019.
- Brigid Grabert, JD, MPH, Health Policy and Management, PhD, UNC; *An exploration of multiple levels of influence on modern contraceptive use in urban Senegal*, Defended April 2019.
- Anna Grummon, MSPH, Health Behavior, PhD, UNC; *Individual- and population-level effects of sugar-sweetened beverage health warnings*, Defended March 2019.
- Seri Anderson, Health Policy and Management, PhD, UNC; *The cost-effectiveness of improved communication of pregnancy risk and contraceptive information*, Defended May 2018.

### **Student mentoring/advising: Academic advisor**

Natalie Smith, PhD Student, Health Policy and Management, UNC

Sophie Ravanbakht, PhD Student, Health Policy and Management, UNC

Estella Obi-Tabot, MSPH Student, Health Policy and Management, UNC

### **Student mentoring/advising: Master's Paper First Reader**

Khadija Jahfiya, Master's Thesis: Policies to address childhood obesity in North Carolina: a briefing in equitable strategies, Defended May 2019.

Taylor Craig, Master's Thesis: Cost-Effectiveness of Progesterone Prophylaxis for the Prevention of Preterm Birth among High Risk Women in Zambia, Defended May 2020.

***Student mentoring/advising: Research advisor***

Bryan Blette, PhD Student, Biostatistics, UNC (Spring 2018)

Xiomara Francis, Project IMHOTEP, UNC (Summer 2018)

Phil Barker, MD Student (CHER Research Summer Program), UNC (Summer 2018)

Anisha Khanna, BSPH Student, Health Policy and Management, UNC (2019-Current)

Gretchen Mason, MPH Student, Health Policy and Management, UNC (2019-Current)

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**CONTRACTS & GRANTS**

**Active**

**Scaling colorectal cancer screening through outreach, referral, and engagement (SCORE): A state-level program to reduce colorectal cancer burden in vulnerable populations, #UG3CA233251 (PI: Reuland)**

Source: National Institutes of Health, National Cancer Institute

Role: Co-I

Duration: 9/18-8/23

Total: \$5,500,000

**Identifying and Disentangling Social and Physical Environmental Effects on Physical Activity in Diverse Adolescent and Young Adult Populations, #1K01HL138159**

Source: National Institutes of Health, National Heart, Lung and Blood Institute

Role: PI

Duration 8/17-7/22

Total: \$779,894

**Completed**

**Cancer Prevention and Control Research Network, #U48 DP005017-SIP (PI: Wheeler)**

Source: CDC/National Cancer Institute

Role: Co-I

Duration: 10/14-9/19

Total: \$1,350,000

**A mixed methods study of how environments alter the outcomes of CVD prevention interventions among rural African American communities, No Number**

Source: Junior Faculty Development Award, University of North Carolina Office of the Executive Vice Chancellor and Provost

Role: PI

Duration: 1/18 -12/18

Total: \$10,000

**A randomized trial of an American Indian colon cancer screening strategy, #493035**

Source: Prevent Cancer Foundation

Role: PI

Duration: 2/17-7/19

Total: \$100,000

**Development of a decision aid and patient navigation intervention to address American Indian colorectal cancer screening disparities, no number**

Source: UNC Lineberger Cancer Center Tier 1 Developmental Award

Role: PI

Duration: 7/15-6/16

Total: \$50,000

**A pilot trial of an integrated clinical-community partnership model for childhood obesity treatment, no number**

Source: The Obesity Society Early Career Award

Role: PI

Duration: 1/16-12/16

Total: \$25,000

**A proof of concept study of a youth-engaged systems science approach to address obesity in a rural African American community, #2KR631404**

Source: North Carolina TraCS Pilot Award

Role: PI

Duration: 7/15-6/16

Total: \$2,000

**Architecture and design for healthy eating in schools, no number (Trowbridge)**

Source: YOUTH-NEX/University of Virginia

Role: Pre-doctoral Trainee

Duration: 9/12 – 8/14

Total: \$50,000

**SaludableOmaha: building a Latino health movement to address obesity, no number (Huang)**

Source: Nebraska Research Initiative

Role: Graduate Research Assistant

Duration: 9/12 – 9/14

Total: \$100,000

**Overcoming barriers to HPV vaccination in underserved American Indian girls and adolescents, no number (Schmidt-Griminger)**

Source: American Cancer Society

Role: Co-I

Duration: 3/09 – 2/11

Total: \$25,000

**Northern Plains comprehensive cancer control program, U58DP000815 (Watanabe-Galloway)**

Source: Centers for Disease Control and Prevention

Role: Program Manager (until 8/2010)

Duration: 6/07-7/12

Total: \$1,000,000

**Northern Plains Native American cancer survivor support, no number**

Source: Lance Armstrong Foundation

Role: PI

Duration: 2/09 – 1/11

Total: \$150,000

**Northern Plains pink shawl project**, no number

Source: Susan G. Komen Foundation

Role: PI

Duration: 4/09 – 3/10

Total: \$31,844

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**SERVICE**

**University Service**

2019-Present Co-Chair of Committee on Diversity and Inclusion, Health Policy and Management, Gillings Global School of Public Health, UNC-CH

2016-2017 Search Committee Member, Behavioral Economics Faculty Position, Health Policy and Management, Gillings Global School of Public Health, UNC-CH

2014 Vice-President of UNMC Research and Professional Development Student Group  
Judging Committee for Distinguished Graduate Mentor Award

2011-2012 Vice-President of UNMC-COPH Student Association  
Member of Student Recruitment and Admissions Committee

2010-2011 Treasurer of UNMC-COPH Student Association  
Volunteer for UNMC Japan Relief Effort activities  
Volunteer for South Omaha Community Care Council Mentoring Program

**Community Service**

2018-2019 Member of Youth Assembly Planning Committee, Twin Counties Partnership for Healthy Communities

2006-2010 Member of Northern Plains Cancer Coalition  
Member of North Dakota, South Dakota, and Nebraska Cancer Coalitions

**National and International Service**

2016-2018 Community Grant Review Committee, Prevent Cancer Foundation

2018 Abstract review committee, International Conference of the System Dynamics Society

2018 Member, APHA Physical Activity Section

**Ad Hoc Reviewer**

Translational Behavioral Medicine, Preventing Chronic Disease, Progress in Community Health Partnerships, Evaluation and Program Planning, Journal of Obesity, BMC Public Health, Health Equity, PLOS One

**Technical Skills**

*Statistical Analysis*

SAS (Proficient, preferred quantitative analysis software), SPSS (Proficient), R (Basic)

*Qualitative Analysis*

NVivo (Proficient, preferred qualitative analysis software)

*Systems Science and Simulation Modeling*

System Dynamics Modeling, Vensim (Proficient)

Agent Based Modeling, AnyLogic (Basic)

Network Visualization and Analysis, Gephi (Proficient)

## **Training**

- 2016 Introduction to R for Social Scientists; University of North Carolina at Chapel Hill, Odum Institute; Chapel Hill, NC
- 2011 Agent Based Modeling Bootcamp for Health Researchers; University of Saskatchewan, Saskatoon, SK Canada
- 2011 EpiInfo and ArcGIS introductory workshop; University of Nebraska Medical Center, College of Public Health
- 2006 Cancer Data Linkages Course: Summer Research Institute for American Indian/Alaska Native Health Professionals; Portland, OR
- 2005 Focus Group Interviewing Workshop: Nebraska Every Woman Matters Program, Lincoln, NE