

BIOGRAPHICAL SKETCH

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NAME: Stange, Kurt C.

eRA COMMONS USER NAME (credential, e.g., agency login): KSTANGE

POSITION TITLE: Director, Center for Community Health Integration. Professor of Family Medicine & Community Health, Population & Quantitative Health Sciences, Sociology and Oncology

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Dartmouth College, Hanover, NH	A.B.	06/1979	Biology
Albany Medical College, Albany, NY	M.D.	05/1983	Medicine
University of North Carolina, School of Public Health, Chapel Hill, NC	Ph.D.	05/1989	Epidemiology
Duke-Watts Family Medicine Program, Durham, NC	Resident/Chief Resident	06/1986	Family Medicine
University of North Carolina, Chapel Hill, NC	Fellow	06/1988	Preventive Medicine

A. Personal Statement

I look forward to serving as co-PI with Dr. Sékaly on this novel, important and very timely research to advance understanding of COVID-19 transmission, prognostic factors, and treatment opportunities in high risk congregate living settings. This highly translational team science brings together two strong laboratory teams with complementary expertise in laboratory and community epidemiological methods. It also builds on a decade of work to build trusting and highly productive working relationships with our strong community partner – the Cuyahoga County Board of Health. I look forward to bringing together innovative laboratory science and on the ground public health science to generate desperately needed new knowledge on how COVID-19 is transmitted in group settings, factors affecting that transmission, how convalescent serum might be obtained to effect treatment of those infected. This work has direct public health application as well as advancing broader scientific questions and leading to further observational and intervention research.

To my role as co-PI I bring a strong working relationship with all participants, and more than two decades of experience as a health services and implementation science researcher conducting practice-based, multimethod, participatory and clinical trials research that aims to understand and improve primary health care and community health. I have expertise in multimethod research that integrates quantitative and qualitative methods, and in participatory computational modeling that engages diverse stakeholders in solving complex problems. Recently have been conducting research at the interface between health care and community/public health. I am actively engaged in patient-oriented outcomes research and research to improve the health and health care of people living with multiple chronic conditions and social and structural disadvantage. I also bring the perspective of a practicing family physician working with a disadvantaged population of patients at a high-functioning community health center.

1. Gullett H, Salib M, Rose J, Stange KC. An evaluation of CenteringParenting: A group well-child care model in an urban federally qualified community health center. *J Altern Complement Med.* 2019 Jul; 25(7): 727-732. doi: 10.1089/acm.2019.0090. PMID: 31314558.
2. Schiltz NK, Warner DF, Sun J, Smyth KA, Gravenstein S, Stange KC, Koroukian SM. The Influence of Multimorbidity on Leading Causes of Death in Older Adults with Cognitive Impairment. *J Aging Health.* 2019 Jul;31(6):1025-1042. doi: 10.1177/0898264317751946. Epub 2018 Jan 18. PubMed PMID: 29347865; PubMed Central PMCID: PMC6295271

3. Kristjansdottir OB, Zangi HA, Ruland C, Mirkovic J, Stange KC, Stenberg U. Helping patients mobilize their personal strengths within a rheumatology setting: A qualitative study with healthcare providers. *European Journal for Person Centered Healthcare*. 2019;7(2): 367-376.
4. Schiltz NK, Dolansky MA, Warner DF, Stange KC, Gravenstein S, Koroukian SM. Using Machine Learning to Assess the Impact of Independent Function and Multimorbidity on Hospital Readmission." *J Gen Intern Med*. 2020; (in press).

B. Positions and Honors

Positions and Employment

- 1988-1999 Assistant to Associate Professor, Case Western Reserve University (CWRU), Cleveland
 1995-1999 Associate Professor of Family Medicine, Epidemiology & Biostatistics, and Sociology, CWRU
 1995-2007 Associate Director for Prevention & Population Research, Case Comprehensive Cancer Center
 1999- Professor of Family Medicine, Epidemiology & Biostatistics, Oncology and Sociology, CWRU
 1999- Director, Center for Research in Family Practice and Primary Care, CWRU and four other sites
 2002-2017 Gertrude Donnelly Hess, MD Professor of Oncology Research, Case, Cleveland, OH
 2002-2018 Editor, *Annals of Family Medicine*
 2007- American Cancer Society Clinical Research Professor
 2017- Director, Center for Community Health Integration, Case Western Reserve University

Other Experience and Professional Memberships

Past President, North American Primary Care Research Group; Member, National Committee on Clinical Preventive Service Priorities; grant reviewer for the NCI, AHRQ, NIA, PCORI, American Cancer Society

Honors

- 1988 Certificate of Merit from the Secretary of Health & Human Services "For a Proposal for an Innovative Approach to Health Promotion and Disease Prevention"
- 1991- Fellow, American College of Preventive Medicine
- 1994-1998 Robert Wood Johnson Generalist Physician Faculty Scholar
- 1999- Institute of Medicine of the National Academy of Sciences
- 2006 American Cancer Society Cuyahoga County Unit Cancer Hall of Fame Award in Research
- 2007-2019 American Cancer Society Clinical Research Professor
- 2012 Family Medicine Education Consortium's Champion of Family Medicine Award
- 2012 Curtis G. Hames Research Award, Society of Teachers of Family Medicine
- 2014 Distinguished University Professor, Case Western Reserve University
- 2016 Scholarship in Teaching Award, Case Western Reserve University School of Medicine
- 2017 Dorothy Jones Weatherhead Professorship, Case Western Reserve University
- 2018 Maurice Wood Award, North American Primary Care Research Group

C. Contributions to Science

1. A sustained and highly collaborative line of investigation seeks to advance understanding of the fundamental attributes of primary care that provide value to people and populations by integrating, personalizing and prioritizing health care for whole people, families and communities.
 - a. Stange KC, Zyzanski SJ, Jaén CR, Callahan EJ, Kelly RB, Gillanders WR, Shank JC, Chao J, Medalie JH, Miller WL, Crabtree BF, Flocke SA, Gilchrist V, Langa DM, Goodwin MA. Illuminating the black box: A description of 4454 patient visits to 138 family physicians. *J Fam Pract*, 1998; 46:377-389.
 - b. Scott JG, Cohen D, DiCicco-Bloom B, Stange K, Miller W, Crabtree B. Understanding healing relationships in primary care. *Ann Fam Med* 2008; 6: 315-322. PMID: PMC2478496
 - c. Stange, KC. The *Annals of Family Medicine* Editorial Series on Integrative Approaches to Promoting Health and Personalized, High-Value Health Care. *Annals of Family Medicine*. 2010. http://www.annfammed.org/cgi/collection/editorial_series
 - d. Heath I, Rubinstein A, Stange KC, van Driel M. Quality in primary health care: a multidimensional approach to complexity. *BMJ*, 2009; 338: b1242.
2. Building on novel methods for understanding practice, we developed and are continuing to refine and rigorously evaluate novel individualized approaches to improving practice to meet patient-centered and

system outcomes. This work includes several highly successful group randomized clinical trials, including evaluation of the National Demonstration Project of the Patient-Centered Medical Home.

- a. Goodwin MA, Zyzanski SJ, Zronek S, Ruhe M, Weyer SM, Konrad N, Esola D, Stange KC. A clinical trial of tailored office systems for preventive service delivery: The Study To Enhance Prevention by Understanding Practice (STEP-UP). *Am J Prev Med*, 2001; 21:20-28.
 - b. Ruhe MC, Bobiak SN, Litaker D, Carter CA, MS, Wu L, Schroeder C, Zyzanski SJ, Weyer SM, Werner JJ, Fry RE, Stange KC. Appreciative inquiry for quality improvement in primary care practices. *Qual Manag Health Care* 2011; 20(1): 37-48. PMID: PMC4222905
 - c. Nutting PA, Crabtree BF, Miller WL, Stange KC, Stewart E, Jaen C. Transforming physician practices to patient-centered medical homes: Lessons from the national demonstration project. *Health Aff (Millwood)* 2011; 30: 439-445. PMID: PMC3140061
 - d. Meropol SB, Schiltz NK, Sattar A, Stange KC, Nevar AH, Davey C, Ferretti GA, Howell DE, Strosaker R, Vavrek P, Bader S, Ruhe MC, Cuttler L. Practice-tailored facilitation to improve pediatric preventive care delivery: a randomized trial. *Pediatrics*, 2014 Jun; 133(6): e1664-e1675. doi: 10.1542/peds.2013-1578. PMID: PMC4035588
3. This line of investigation began with novel direct observation methods, developed novel mixed quantitative and qualitative methods, and most recently is advancing novel participatory methods for advancing patient-centered outcomes through participatory group model building of agent-based computer simulation models.
- a. Stange KC, Miller WL, Crabtree BF, O'Connor PJ, Zyzanski SJ. Multimethod research: Approaches for integrating qualitative and quantitative methods. *J Gen Intern Med*, 1994; 9:278-282.
 - b. Stange KC, Zyzanski SJ, Smith TF, Kelly R, Langa DM, Flocke SA, Jaén CR. How valid are medical records and patient questionnaires for physician profiling and health services research? A comparison with direct observation of patient visits. *Med Care*, 1998;36:851-867.
 - c. The DOPC Writing Group. Conducting the direct observation of primary care study: Insights from the process of conducting multimethod transdisciplinary research in community practice. *J Fam Pract*, 2001; 50:345-352.
 - d. Homa L, Rose J, Hovmand PS, et al. A participatory model of the paradox of primary care. *Ann. Fam. Med.* 2015; 456-465. PMID: PMC4569454.
4. Recent work focuses on promoting health across boundaries, particularly on fostering the synergistic effects of whole systems approaches to integrating health care, public health and community health.
- a. Stange KC. Refocusing knowledge generation, application, and education raising our gaze to promote health across boundaries. *Am J Prev Med* 2011; 41(4S3): S164-S169. PMID: PMC4079111
 - b. Sweeney SA, Bazemore A, Phillips RL Jr, Etz RS, Stange KC. A reemerging political space for linking person and community through primary health care. *Am J Public Health.* 2012 Jun; 102 (Suppl 3): S336-S341. PMID: PMC3478087
 - c. Leykum LK, Lanham HJ, Pugh JA, Parchman M, Anderson RA, Crabtree BF, Nutting PA, Miller WL, Stange KC, McDaniel RR. Manifestations and implications of uncertainty for improving healthcare systems: an analysis of observational and interventional studies grounded in complexity science. *Implement Sci.* 2014;9:165 [epub, 13 pp]. PMID: PMC4239371
 - d. Stange KC, Etz RS, Gullett H, Sweeney SA, Miller WL, Jaén CR, Crabtree BF, Nutting PA, Glasgow RE. Metrics for assessing improvements in primary health care. *Annu Rev Public Health* 2014; 35: 423-442.
5. Building on two decades of practice-based research and development, recent work supported by the NIH, AHRQ, PCORI, and other sources has focused on participatory methods that increase the relevance and transportability of research by engaging stakeholders as active participants.
- a. Bayliss E, Bonds DE, Boyd C, Davis MM, Finke B, Fox MH, Glasgow RE, Goodman RA, Heurtin-Roberts S, Lachenmayr S, Lind C, Madigan EA, Meyers D, Mintz S, Nilsen WJ, Okun S, Ruiz S, Salive ME, Stange KC. Understanding the context of health for people with multiple chronic conditions: Moving from what is the matter to what matters. *Ann Fam Med*, 2014; 12(3):260-269. PMID: PMC4018375

- b. Werner JJ, Stange KC. Praxis-based research networks: An emerging paradigm for research that is rigorous, relevant and inclusive. *J Am Board Fam Med* 2014; 27(6):730-5. doi: 10.3122/jabfm.2014.06.140034. PMID: PMC4822826
- c. Davis MM, Aromaa S, McGinnis PB, Ramsey K, Rollins N, Smith J, Beamer BA, Buckley DI, Stange KC, Fagnan LJ. Engaging the underserved: a process model to mobilize rural community health coalitions as partners in translational research. *Clin Transl Sci*, 2014; Aug;7(4):300-306. PMID: PMC4134739
- d. Aungst H, Baker M, Bouyer C, et al. Patient-Identified Personal Strengths (PIPS) versus deficit-focused models of care. Final Research Report. Patient-Centered Outcomes Research Institute. 2018; in press [accepted 2/6/18]. Epub available Feb 2019. See <https://www.pcori.org/research-results/2012/identifying-personal-strengths-help-patients-manage-chronic-illness> for updates.

A Fuller List of Peer-Reviewed Published Work:

www.ncbi.nlm.nih.gov/sites/myncbi/kurt.stange.1/bibliographahy/42859682/public/?sort=date&direction=ascending

D. Research Support

Ongoing Research Support

Etz/Stange (Co-PIs) 09/01/17-08/31/21

American Board of Family Medicine Foundation

Larry A. Green Center for the Advancement of Primary Health Care for the Public Good

Goals: To be a creative and high-yield force for improving the ability of primary health care and family medicine to advance the health and improve the health care of all Americans through (1) developing conceptualizations and measures of how primary health care advances personal and population health, equity, and sustainability; (2) leveraging an ongoing formative investment to develop an active research portfolio focused on understanding the mechanisms by which primary health care provides value; and (3) fostering a dynamic, innovative, interdisciplinary interchange among diverse stakeholders for the advancement of primary health care for the health of people, populations and society.

WLPS-1409-24372 (Littenberg, PI) 04/01/16-03/31/21

PCORI

Integrating Behavioral Health and Primary Care for Comorbid Behavioral and Medical Problems

Goal: Investigate whether increased integration of evidence-supported behavioral health and primary care services, compared to simple co-location of providers, improves outcomes.

Role: Co-Investigator, Site PI

(Halko, PI, with Gullett & Brown) 9/29/18-9/28/23

CDC

"Health Improvement Partnership- Cuyahoga (HIP-Cuyahoga): Supporting Communities in Achieving Equity and Better Health, responsive to the CDC's Racial and Ethnic Approaches to Community Health (REACH) RFA CDC-RFA-DP18-1813"

Goals: To rapidly implement pragmatic approaches to nutrition, physical activity, and community-clinical linkages in the African-American population within Cuyahoga County. This proposed work aims to reduce racial disparities in chronic disease by building on realistic activities found to be successful in the 2014-2018 REACH grant and related HIP-Cuyahoga work to improve nutrition across the lifespan, increase physical activity opportunities, and facilitate resource linkages to chronic disease self-management and other prevention programs through empowerment of neighborhood-based community health workers and the integration of resource referrals within clinical electronic health records.

Role: Evaluation Lead

P30 CA043703 (Gerson, PI) 04/01/18-03/31/23

NIH/NCI

Case Comprehensive Cancer Center Support Grant

Goals: 1) to improve the prevention, diagnosis, and therapy of cancer through research; 2) to stimulate and support innovative, coordinated, interdisciplinary research on cancer diagnosis, treatment, and control; 3)

to develop clinical applications of research discoveries and to make these applications available as quickly as possible; and 4) to develop cancer prevention and control activities to contribute to the reduction of cancer morbidity and mortality in Northeast Ohio and the surrounding region and nation.
Role: Co-Director, Multimethod Cancer Outcomes Shared Resource

U54 MD002265 (Sehgal, PI) 09/01/17-8/31/22
NIMHD

Involving Communities in Delivering and Disseminating Health Disparity Interventions

Goals: Combine research, career development, and community partnership activities to engage communities in delivering and disseminating health disparity interventions to enhance the innovation, potency, relevance, and sustainability of efforts to reduce health disparities.

Role: Co-I and co-leader of Project 2

U54 TR001960 (Konstan) 04/01/2018-03/31/23
NIH/NCATS

Clinical Translational Science Award

Goal: The goal of this award is to provide infrastructure to support translational science and clinical trials at Case Western Reserve University.

Role: Co-Lead, Community and Collaboration Component

(Gullett PI) 1/1/20-12/31/21 0.3 calendar
Robert Wood Johnson Foundation via PHAB \$133,9280 (in-kind)
Cross Sector Innovation Award

Goals: 1) Using equity-grounded community participatory group model building to create a systems change model for Cuyahoga County. 2) Identifying systems interventions to address structural racism and lack of trust through the systems model; and 3) Identify and employ measures of change in collaborative effectiveness that result in quantifiable systems change across our county resulting in achievement of equity and improved population health.

Role: Co-investigator

ODM202017 (Konstan, PI) 7/3/19-6/30/20 0.3 calendar
Ohio Department of Medicaid \$151,901 (sub-award)
Diabetes Quality Improvement Project

Goal: The MEDTAPP Diabetes Quality Improvement Project is a collaboration of clinical leaders and academic, health care payer partners across the state of Ohio to improve the system of care for diabetes to achieve equitable health outcomes for people living with poorly controlled diabetes across the state.

Service Agreement 11/1/19-12/31/24 2.4 calendar
OCHIN, Inc. \$388,046

Invited, by the OCCHIN research group, to partner with investigators to advance collaborative research in areas of mutual interest and shared mission. 1) provide mentorship and research guidance in general; and 2) mentor two specific investigators.

Role: Project Director

(Gullett PI) 5/1/20-4/30/25
CTSC KL2

Building a Foundation for Equity Science in Community Health

Goals: 1) Conduct a Community-Based System Dynamics evaluation to identify generalizable leverage points in an innovative equity-grounded community health improvement plan; 2a) Implement and evaluate the health impact of a novel system to screen for the social determinants of health and link patients with 211 resource navigation in community health center practices; 2b) Examine the uptake of this single item screener compared to currently used longer social determinants of health screening instruments in a national network of community health centers; 2c) Pilot test scaling a brief social determinant screening/211-linking intervention for a widespread implementation trial in a national network of community health centers.

Role: Mentor