Lightning Introductions

Sociotechnical Interventions for Health Disparity Reduction

April 9-10, 2018

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Sirry Alang/Lehigh University

What do you hope to bring to the workshop?

Perspectives:
- **Contextualizing racial/ ethnic inequities in health**
- **Community-based participatory action research**

Expectations:
- **Learning about socio-technical interventions**
- **Meeting new collaborators**

Suzanne Bakken/Columbia University

What do you hope to bring to the workshop?

Latino populations
Information visualization
Self-management
Return of research results

Andrea Barbarin/IBM Watson Health

What do you hope to bring to the workshop?

- Familiarity with challenges of designing sociotechnical interventions (for patient behavior change) that use AI/ML/Big Data

- Understanding the practical logistics of conducting research with people living in underserved communities

- Appreciation for policy, legal, and regulatory aspects of researching, designing, and deploying sociotechnical health interventions

Laura Bartlett/NIH, National Library of Medicine

I will bring:
- **Health information seeking, user needs, usability**
- **NLM programmatic perspective**

I will gain:
- **Present/future funding needs**
- **Open science/citizen science/big data**

Elisabeth Becker/University of Texas

I will bring:

1. Student perspective on <u>training needs</u> for sociotech intervention development and implementation.

2. <u>Entrepreneurial perspective</u> for sociotech intervention products.

3. Lessons from <u>design, user experience and implementation</u> of theory-driven cancer prevention app.

UTHealth | The University of Texas Health Science Center at Houston | School of Public Health

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Deanna Befus/Wake Forest University

--Commitment to decolonizing, participatory data collection and intervention development strategies for health equity and social justice work
--Clinical experience in the primary care safety net
--Experience using critical systems thinking approaches to unpack complex health behaviors and identify barriers and facilitators to intervention and program implementation

Wake Forest®
School of Medicine

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Cynthia Castro Sweet/Omada Health

I bring a digital health perspective - creative ways to use technology to bring health interventions (specifically health behavior change) to under-resourced communities, and ways to scale resources to extend reach and inclusion across populations.

Heather Cole-Lewis/Johnson and Johnson

I will bring:

- An open mind
- Perspectives on how to combine behavior science, human centered design, and informatics to improve our reach and impact
- Ideas on how to build solutions that use evidence-based methods and innovation to achieve impact at scale and reach populations that are often forgotten
- Questions and opinions on how to improve cross-disciplinary collaboration to reach our common goals.

Kay Connelly/Indiana University

I will bring:
- Experience in design, development and deployment of mobile and sensor-based interventions for a variety of populations that often experience health disparities
  - Low-income
  - Low-literacy and/or low-numeracy
  - Older adults
  - Rural america

Mary Czerwinski/Microsoft Research

I will bring:
- Lessons about health interventions
- Knowledge about leveraging ML for precision psychology
- Longitudinal studies of mobile ehealth
- Learnings around conversational UIs

Microsoft Research

Tawanna Dillahunt/University of Michigan

I will bring:
- A human-centered design perspective to designing socio-technical interventions
- Lessons learned from designing, developing, and deploying socio-technical interventions in resource-constrained settings in the U.S.
- An understanding of the facilitators and barriers to transportation access for health-enhancing activities in underserved communities

Khari Douglas/CCC

I hope to help shape the opportunities and challenges discussed here into a unified research agenda.

Valerie Earnshaw/University of Delaware

I will bring:
- Experience with research to understand and interventions to address stigma
- Enthusiasm for learning about integrating sociotechnical approaches into my work and building collaborations

Rachel Gold
Kaiser Permanente Center for Health Research and OCHIN, Inc.

Kaiser Permanente NW Center for Health Research; OCHIN, Inc.

My research asks how to use HIT to address health disparities, especially how CHCs can document and take action on patients' social determinants of health using their EHRs. I lead two NIH-funded studies on this topic, and several others on using decision support tools to reduce disparities in CHCs.

Paul Gorman/Oregon Health Sciences University

My work includes developing the rural healthcare workforce in Oregon and bringing health systems sciences to the undergraduate medical curriculum. I hope these perspectives can help us find new ways to eliminate health disparities.

OHSU

Syed Haider/Johnson & Johnson

Identify opportunities Data Science can inform and help address disparities in the context of DIs.

Eric Hekler/University of California, San Diego

Questions:
- How do we facilitate agency over empowering?
- How do we link privilege with responsibility?

Disclosures:
- My increasing sense of unease about unintended consequences of my work.

Stories:
- Ongoing projects on helping individuals help themselves.

UC San Diego
SCHOOL OF MEDICINE

Sarah Iribarren/University of Washington School of Nursing

What do you hope to bring to the workshop?
- Global health and nursing perspective
- Growing experience and understanding of challenges for developing and evaluating mobile solution to support patient outcomes in limited resource settings
- Enthusiasm for learning new skills

SCHOOL OF NURSING
UNIVERSITY *of* WASHINGTON

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Maia Jacobs/Harvard University

What do you hope to bring to the workshop?

- **Human centered computing** methods to create and evaluate personalized consumer health tools
- Experience leading research embedded in **rural healthcare** systems
- Interest in how technology can enhance in-person support systems to eliminate **barriers to care**

HARVARD
School of Engineering and Applied Sciences

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Holly Jimison/Northeastern University
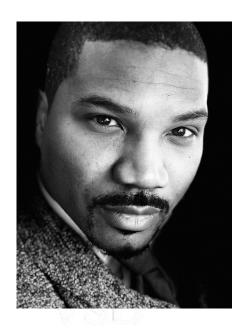
What do you hope to bring to the workshop?

- Technology infrastructure for delivering tailored just-in-time interventions to the home
- Dynamic user models to tailor the content and timing of coaching messages
- Experience in adapting content and interfaces for minority and underserved populations

Northeastern University

Charles Jonassaint/University of Pittsburgh

- **Unique perspective on health disparities**
- **Experience leveraging mHealth to reach underserved patients in a low resource setting**
- **Bumps and bruises from lots of failure**

Julie Kientz/University of Washington

What do you hope to bring to the workshop?
- A human-centered design perspective on interventions for health, particularly focusing on kids and families
- 12 years of experience working on designing and evaluating novel technology for developmental screening in young children from diverse families
- Experience with exploring technology transfer for novel research interventions through various government, non-profit, and for-profit approaches

Kathy Kim/UC Davis School of Nursing

UC DAVIS
BETTY IRENE MOORE
SCHOOL OF NURSING

What do you hope to bring to the workshop?

- **Participatory methods for enhancing technology design and research design**
- **Prior work in CBPR with native american, rural and urban underserved communities**
- **Informatics based on healthcare experience in acute care, clinics, and administration**

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Pedja Klasnja/Kaiser Permanente Washington

KPWHRI

- 10 years of experience with designing and testing mHealth systems
- Strong interest in methodology, particularly methods for evaluation and optimization of individual intervention components
- Passion for figuring out how we can develop more robust, precise theories of human behavior and intervention response

Young-Ji Lee/University of Pittsburgh School of Nursing

- Experience with leveraging social media to understand patients' needs and perspectives
- Experience with designing, developing, and evaluating mHealth interventions in under-resourced communities
- Enthusiasm for learning new perspectives on sociotechnical interventions and building new collaboration

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Robert Lucero/University of Florida - Gainesville

What do you hope to bring to the workshop?
Chronic-disease Self-management
Consumer-engaged design
Underserved/Vulnerable Populations
Health-maintenance/Promotion

UF Florida Blue Center
for Health Care Quality
UNIVERSITY of FLORIDA

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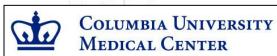# Haley MacLeod/Facebook

What do you hope to bring to the workshop?
- Social media and online health communities for facilitating social support
- Research methods for small, sensitive, geographically dispersed populations

Lena Mamykina/Columbia University

- Background in Computer Science, Human-Computer Interaction and Biomedical Informatics
- Expertise in human-centered design of computing interventions for health management
- Experience working with medically underserved communities in New York City

COLUMBIA UNIVERSITY
MEDICAL CENTER

Gabriela Marcu/Drexel University

What do you hope to bring to the workshop?

- Human-computer interaction, design thinking, participatory design perspectives
- Experience balancing stakeholder needs and tensions during the design process
- Fieldwork and projects in urban settings

Jessica McCurley/Massachusetts General Hospital & Harvard Medical School

What do you hope to bring to the workshop?

- Experience developing and testing culturally tailored interventions for health disparity reduction
- Epidemiological perspectives on behavioral and psychosocial contributors to cardiometabolic disparities in U.S. Hispanic/Latinx individuals
- International work; consideration of influence of migration/immigration status on participant factors

Sarah Miller/Mount Sinai School of Medicine

Icahn School of Medicine at **Mount Sinai**

- Experience designing, developing, and testing sociotechnical interventions designed to help improve cancer screening rates in racial/ethnic minorities

- Clinical psychology perspective

- Enthusiasm to learn from other professionals and researchers in the field

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Enid Montague/DePaul University

What do you hope to bring to the workshop?
- Double major PhD in human factors engineering and cultural critical theory
- Expertise in trust in sociotechnical systems
- 10 years of experience in the design and evaluation of clinical and consumer health technologies
- Domain expertise in primary care, emergency medicine, community based participatory research, obstetrics and mental health

Brian Mosley/CRA

What do you hope to bring to the workshop?

Sarah Mullane/Arizona State University

- Synthesizing user-centered design and behavioral research to facilitate translation into real world settings.
- Workplace sedentary behaviors and inactivity.
- Leveraging innovative trial designs (MOST and MRT's) to explore the proximal effects.
- Opportunity for and receptivity to mHealth.

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Sean Munson/University of Washington

A view of healthcare as collaborative (intentionally or otherwise!), with a focus on how people use personal data in collaborations to understand and manage their health. Collaborations may be a tool for decreasing health disparities, but they also could increase them.

Beth Mynatt/Georgia Tech, CCC

Looking to articulate a national agenda in Health IT that

(1) Integrates the need to combat health disparities and

(2) Fights against unintended consequences of increasing healthcare disparities through the creation of new Health IT interventions and approaches.

Lyndsay Nelson/Vanderbilt University Medical Center

- Experience designing theory-based and tailored technology-delivered interventions for adults with type 2 diabetes
- An interest in leveraging technology to increase access to the widest population of patients
- Considerations and strategies for recruiting and retaining patients for RCTs in community health settings

VANDERBILT UNIVERSITY
MEDICAL CENTER

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Robert Newton/Pennington Biomedical Research Center

- Experience using technology with African Americans and in community settings
- An interest in designing effective interventions to increase and sustain physical activity levels

Michelle Odlum/Columbia University

Experience in assessing and evaluating health information seeking behaviors, health information needs and the effectiveness of health information campaigns in Social Networking data

The cultural and racial/ethnic adaptation of evidence-based interventions, utilizing technological approaches, to support effective symptom management.

Jessica Pater/Georgia Tech

- Experience designing research studies focused on behavioral health issues focused on youth-based technology use.
- Passion for social computing practices that give agency to the individual user.
- Commitment to collaborative and interdisciplinary approaches to research.
- Interest in how technology impacts and transforms characteristics of mental health diseases.

Misha Pavel/Northeastern University

- **Computational modeling of individuals' characteristics and their dynamics in context to optimize intervention**
- **Computational frameworks that will help us understand why some mHealth applications succeed and others fail**

Northeastern University

Wanda Pratt/University of Washington

- Commitment to amplifying the patient's voice in health-care systems
- Experience in understanding and designing systems to support patients and their unique expertise
- Expertise in design methods, health informatics, participatory methods, and patient safety
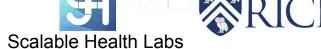
Madhu Reddy/Northwestern University

- My expertise at the intersection of HCI/Health Informatics studying sociotechnical systems in health
- Interest in designing and implementing digital mental health interventions for treating depression and anxiety

Charles Senteio/Rutgers University

RUTGERS
School of Communication and Information

- Perspectives on health equity research using mixed methods with both primary data via community-based organizations and secondary data.
- Sociotechnical considerations in development and evaluation of technology-enabled health improvement interventions

Shawna Sisler/University of Utah

UNIVERSITY OF UTAH
COLLEGE OF NURSING

What do you hope to bring to the workshop?
- Innovative and effective uses of mHealth as relates to SDH in pediatric and AYA populations
- Increased focus on application of social determinants of mental health
- Pediatric NP, public health, ed tech background
- As a PhD student, I am an excellent work-horse who needs very little compensation. Mostly, just high-fives and donuts (am pregnant).

Jamilia Sly/Icahn School of Medicine at Mount Sinai

Icahn School
of Medicine at
**Mount
Sinai**

What do you hope to bring to the workshop?

My research is focused on addressing health disparities in the context of cancer screening and preventive interventions.

I hope to bring a consideration of the sociotechnical needs and perspectives/perceptions of underserved, low-income consumers so that as technology grows, disparities are *not* unintentionally increased due to lack of access, awareness, skill, education, etc.

Stephanie Sohl/Wake Forest School of Medicine

Wake Forest® School of Medicine

What do you hope to bring to the workshop?

- Experiences field testing an eHealth Mindful Movement and Breathing intervention that aims to improve gynecologic cancer surgery outcomes
- Openness to new ideas generally and specific to enhancing our intention to reduce barriers to participation and be inclusive of people most in need
- Focus on increasing self-efficacy for self-management

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Bonnie Spring/Northwestern University, MD2K

Northwestern Medicine
Feinberg School of Medicine

What do you hope to bring to the workshop?

- A decade of positive experiences designing mHealth interventions for populations of varying ages, SES, and concerns
- Hard knocks lessons about trying to introduce 1st generation tech, infuse group social support, and remove (expensive) humans from the mHealth loop
- Lots of questions about how to do this all better to improve public health equitably

MD2K
Center of Excellence for
Mobile Sensor
Data-to-Knowledge

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Donna Spruijt-Metz/University of Southern California

- 10 yrs of mHealth with youth & families in underserved populations.
- Lessons learned & lessons I still need to learn on working across populations and disciplines.
- Thoughts & questions on 1) when we need to ask (rather than sense), 2) when we need to have humans in the loop (and which humans do we need when)
- Engagement engagement engagement (all three different kinds)
- How to use this data to develop more dynamic theories of human behavior that we can use in JITAIs

Michael Stanton/California State University, East Bay

What do you hope to bring to the workshop?
- Clinical and research experience with populations negatively affected by health disparities
- Professor at the most diverse university in the continental USA
- Co-founder of startup tackling disparities in tech
- Excited to learn from colleagues and how we can best address disparities

Jasmin Tiro/University of Texas Southwestern

- Experience building research/quality improvement partnerships with safety-net healthcare systems
- Expertise using mixed methods to develop & test behavioral interventions
- Questions about dissemination of sociotechnical interventions to ensure reach into underserved populations and under-resourced health systems

UTSouthwestern
Harold C. Simmons
Comprehensive Cancer Center

NCI Comprehensive Cancer Center
A Cancer Center Designated by the National Cancer Institute

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John Torous/Beth Israel Deaconess Medical Center

-Considering the clinical need for practical guidelines

-Awareness concerning nature of many current mhealth consumer apps and devices.

-Examples from the American Psychiatric Association on approaching mhealth

Tammy Toscos/Parkview Health

- Experience as a clinician and research scientist working with underserved populations to improve healthcare access and support health behavior change
- Expertise developing and deploying tailored health technology interventions
- Passion for interdisciplinary research

PARKVIEW
HEALTH

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Kim Unertl/Vanderbilt University

What do you hope to bring to the workshop?
Knowledge of clinical workflow and healthcare contextual requirements and about the impact of healthcare system requirements on sociotechnical interventions. Expertise on unintended consequences of technology implementation.

Rupa Valdez/University of Virginia

- Interdisciplinary perspective drawing on engineering, anthropology, and public health
- Focus on a range of underserved populations, including those often overlooked such as people with disabilities
- Commitment to co-design and participatory methods
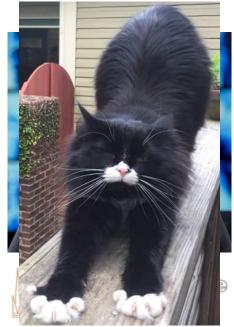
Tiffany Veinot/University of Michigan

- Meso-level informatics interventions:
  - Facility-level interventions to enhance CV safety of hemodialysis care
  - New data sources to characterize neighborhood effects on health
  - Network intervention for HIV testing & PrEP uptake among AA MSM
- Trust-centered design & CBPR principles
- Awareness of IGI risk in informatics

Lauren Wilcox/Georgia Tech

I will bring:
- Experience **engaging adolescents, young adults, and families** in user-centered and participatory **design** processes
- Knowledge of the privacy, confidentiality, and technical issues surrounding management of **adolescents' electronic health records** --and the implications of these issues for adolescents seeking health services
- Experience applying **mixed-methods approaches** to evaluating personal health technologies
- Passion for ecological validity, and joint patient and clinician participation in the technology design and development cycle

http://hx.gatech.edu

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Xinzhi Zhang/NIH, National Institute on Minority Health and Health Disparities

- **Minority health and health disparities definitions at NIMHD**
- **NIMHD research advancement and planning**