2026

University of Wisconsin-Madison

# RISE-THRIVE

## Symposium

# Hosted By

College of Letters & Science
UNIVERSITY OF WISCONSIN-MADISON

With special thanks to:
Erin Bailey, Collective for Research Impact and Social Partnership, L&S
Lori Lopez, Associate Dean for Social Sciences, L&S, RISE Core Team
Jordan Lovellette, Event Manager, L&S
Grant Nelsestuen, Associate Dean for Arts and Humanities, L&S

# With support from

Collective for Research Impact and Social Partnerships

Center for Demography of Health and Aging
UNIVERSITY OF WISCONSIN-MADISON

Robert M. La Follette School of Public Affairs
UNIVERSITY OF WISCONSIN-MADISON

The Center for Aging Research and Education
SCHOOL OF NURSING
UNIVERSITY OF WISCONSIN-MADISON

## Agenda: RISE-THRIVE Symposium
## Friday March 13, 2026, 9am-3:30pm

**9 – 9:15am Welcome, Great Hall**

Lori Lopez, Associate Dean for Social Sciences, College of Letters & Science
Michael Morgan, Associate Dean for Research, College of Letters & Science

**9:30 – 10:45am Concurrent Session 1: Communicating Your Research – Skill builder**

- Session A: Communicating Your Research to Policy Makers, in Capitol View
- Session B: Communicating your work to Public & Community Audiences, in Old Madison
- Session C: How Foundation Partnerships Drive Innovation and Impact, in the Great Hall

**11:00am – 12:15pm Concurrent Session 2: Conducting Research with Special Populations**

- Session D: Working with infants and children, in Capitol View
- Session E: Working with Older Adults, in Multicultural Greek Council Room
    - Hosted by the Center for Aging Research & Education
- Session F: Working with People with Disabilities, in Great Hall

**12:30 – 1:30pm Lunch: Graduate Posters & Networking, Great Hall**

Network with colleagues and visit graduate posters

**1:30 – 2:45pm Concurrent Session 3: Cells to Society**

- Session G: Places, Health & Aging, Multicultural Greek Council Room
    - Hosted by the Center for Demography of Health and Aging
- Session H: Immunology as Personalized Medicine, in Capitol View
- Session I: Adaptations for Aging – Modifying our everyday for living/equity, in Old Madison
- Session J: On Thriving, Wellbeing and Longevity, in Great Hall

**2:45 – 3pm Ice Cream Break, Great Hall**

**3 -3:30pm Closing Activities: Interest Mapping & Networking, Great Hall**

- Join a theme table to discuss shared ideas and generate new relationships
- Share your work, connections and ideas by contributing to the development of an interest and affinity map

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# Concurrent Session 1, 9:30 – 10:45am

### Session A: Communicating Your Research to Policy Makers

**Hosted by:** The LaFollette School of Public Affairs
**Moderators:** Mindy Walker, Crystal Potts, Michael Collins, Tony LoSasso

The Robert M. La Follette School of Public Affairs is a leading academic institution in improving the design, implementation, and evaluation of public policy and the practice of governance. Join team members from the La Follette School of Public Affairs and the Assistant Vice Chancellor for University Relations and Senior Director of State Relations & Statewide Outreach to discuss the importance of working with policymakers and how to go about forging those relationships.

**Mindy Walker, Outreach Engagement Manager**
Mindy joined the La Follette School in September 2022 and works on legislative outreach and events, putting the Wisconsin Idea into action. As the outreach engagement manager, she connects the La Follette School to policymakers and the public through events, client projects, and the Wisconsin Women in Government Seminar. Mindy is excited to be back at the university where she first became involved in politics as a political science undergrad. When she isn't "outreaching," you can find her camping at a state park or biking about town with her family.

**Crystal Potts, Assistant Vice Chancellor for University Relations and Senior Director of State Relations & Statewide Outreach**
Crystal Potts is the Assistant Vice Chancellor for University Relations and Senior Director of State Relations & Statewide Outreach for the University of Wisconsin-Madison. In her role, she serves as the point of contact for state government relations, including the governor's office, the state legislature, and state agencies. She also assists in the creation and implementation of a statewide advocacy effort on behalf of the university. Crystal previously served as the chief of staff to Wisconsin State Senator Howard Marklein (R-Spring Green). In this capacity, she also supported the legislature's budget-writing Joint Finance Committee as the Senate staff lead on

tax and local government issues. She also served as the research assistant and staff clerk to the Committee on Ways & Means in the State Assembly early in her career at the Wisconsin State Capitol.

**J. Michael Collins, Professor, School of Human Ecology**
J. Michael Collins is the Fetzer Family Chair in Consumer & Personal Finance in the School of Human Ecology, a Professor at the La Follette School of Public Affairs, a family economics specialist for the Division of Extension, the Associate Director for Training and Research at the Institute for Research on Poverty, and an affiliate of the Center for Demography and Ecology, the UW Survey Center and the School of Social Work. He leads the UW Retirement and Disability Research Consortium research center funded by the Social Security Administration. Collins studies consumer decision-making in the financial marketplace, including the role of public policy in influencing credit, savings and investment choices. He is involved in studies of household finance and well-being supported by leading foundations and federal agencies. In addition to the edited volume, A Fragile Balance: Emergency Savings and Liquid Resources for Low-Income Consumers, Collins co-authored the textbook: Financial Capability and Asset Building: A Textbook for Professionals (Oxford Press, with Birkemeier and Sherraden)

**Tony LoSasso, Professor, La Follette School of Public Affairs**
Tony Lo Sasso is the Robert F. and Sylvia T. Wagner Professor of Public Affairs in the La Follette School of Public Affairs. His research spans multiple areas, including health and labor economics, health policy, and health services and outcomes research. Lo Sasso has secured funding from the Agency for Healthcare Research and Quality (AHRQ), the National Institutes of Health (NIH), and numerous private foundations. With over 80 publications, he is highly interested in how government policies influence private-sector decisions and how market forces can be used to improve the healthcare sector and, ultimately, the health of the American public.

## Session B: Communicating your work to Public and Community Audiences

**Moderator:** Lori Lopez, Associate Dean for Social Sciences in the College of Letters & Science, Professor, Communication Arts

**Tamara LeCaire, MS, PhD, Senior Scientist, School of Medicine and Public Health, Wisconsin Alzheimer's Institute**

**Title:** *Approach to evaluation and dissemination of a public health-led and community-based dementia service coordination model: The Wisconsin Dementia Care Specialist Program*

**Abstract:** The Wisconsin Dementia Care Specialist (DCS) program is a person-centered collaborative dementia service coordination model offering local, community-based support for persons living with Alzheimer's disease or related dementias (PLWD), their families and communities. The DCS are statewide public health professionals trained to provide specialized support, education, and resources that promote aging in place, working in partnership with Aging and Disability Resources Centers (ADRCs) and Tribal Health offices. A descriptive cross-sectional evaluation is being conducted by the UW Wisconsin Alzheimer's Institute to assess dementia-related services provided statewide by the DCS. A listening session and survey with the DCS informed key considerations for this evaluation, including on the current state of the workforce. Data from clients (PLWD, Caregivers and the general public and agency staff who requested assistance from the DCS) were extracted from a central state 'Encounter' database and are being used to summarize characteristics of the DCS, their clients, the varied contexts of the counties served, and the frequency of the services sought by topic and support area. Engagement with stakeholders has been key to establishing the approach and for

dissemination of findings, including with statewide ADRCs and Tribal Health program staff, the DCS and the communities they serve.

**Noelle Loconte, MD, FASCO, Associate Professor, School of Medicine and Public Health, Dept of Medicine**

***Title:*** *Creation and use of a lay abstract program for cancer research*

**Abstract:** The office of Community Outreach and Engagement at the UW Carbone Cancer Center has created a program to create community visual lay abstracts for any faculty or researcher to utilize, with an emphasis on research presented at national meetings or published in high impact journals. The goal of the project was to make it prompt and low effort for faculty, while also making visual abstracts that are understood among lower health literacy populations. Faculty submit their poster or written paper, and the COE office creates a lay abstract, with faculty having final approval authority. 31 abstracts have been created thus far. Faculty have been surveyed about the process, and all faculty agree that the process is timely, useful and accurate. Lay abstract creation being free, easy and accurate are prioritized as key “very important” components by faculty. The abstracts have been used in teaching, grant summaries, community outreach, philanthropy efforts and with our community advocacy board. The process for soliciting, creating and distributing abstracts will be reviewed.

Authors: Noelle LoConte, MD, FASCO, Jennifer Bird, PhD, Wyatt Stover

**Meghan Lepisto, MS, Communications Manager, School of Medicine and Public Health, Department of Obstetrics and Gynecology - UW Collaborative for Reproductive Equity**

***Title:*** *#TeachingTuesday: Simplifying Research into Bite-Sized Insights*

**Abstract:** This talk will showcase the UW Collaborative for Reproductive Equity's #TeachingTuesday posts, which distill complex reproductive health research into simple, engaging insights for social media. The presentation will share examples, highlight the posts' reach and impact, and demonstrate how an internal tracking system supports ongoing use of this accessible, evidence-based information.

**Brady Krien, PhD, MLIS, Digital Humanities Librarian, UW-Libraries**

***Title:*** *Your Research Deserves a Broader Audience*

**Abstract:** As researchers, we are trained to communicate with each other — through posters, presentations, and journal articles. But few of us receive formal training in communicating our work to people outside our disciplines. The result is research that rarely travel beyond the lab, the classroom, and the clinic. This talk offers two practical, research-supported scaffolding strategies for sharing science with general audiences without dumbing it down. The first focuses on message distillation: identifying the what, how, and why of your research as the core of all public-facing communication. The second addresses narrative structure: replacing the slow build of a journal article with a frame-first approach — leading with the key insight and bringing your audience along from there. Attendees will leave with two concrete, immediately applicable tools grounded in science communication research.

**Laura Evans, PhD, CommNS Student & Stakeholder Engagement Manager**

**& Co-Create Researcher, Center for Community and Non Profit Studies, School of Human Ecology**

**Title:** Co-Create: The Communication of Evaluation

**Abstract:** Communication that encourages community-building requires thoughtful, flexible, and creative strategies that shape how evaluation is conducted shared and used. This presentation highlights tools and efforts that Co-Create develops and applies to their communications that support community organizations, local agencies, and philanthropy in stronger evaluation practices. Drawing from multiple projects we describe how communication strategies are intentionally integrated throughout the evaluation process, from facilitation and relationship-building to the design of deliverables, dissemination of findings, and support for implementation. In our current global and local civil environment, meaningful and impactful communication can be a challenging task, particularly for those trying to build partnerships across audiences. At Co-Create, rather than viewing communication as a final step of reporting results, our approach treats it as a core component of the evaluation process. Participants will gain insights into how communication tools can be leveraged to promote transparency, shared ownership of knowledge, and more meaningful engagement with community partners throughout the evaluation lifecycle.

**Session C: How Foundation Partnerships Drive Innovation and Impact**
**Hosted by:** Wisconsin Foundation and Alumni Association
**Moderator:** Gillian Fink, Wisconsin Foundation and Alumni Association
**Panelists:** Jenni Jeffress, Sarah Endicot, Alyssa Turnquist

**Gillian Fink**
Gillian CB Fink has 25+years experience in higher education advancement. At The Juilliard School, New York University, and University of Wisconsin-Madison, Fink is known for program design and implementation that is built on diplomacy and energy in the domains of philanthropy development, communications, and thoughtful administrative systems. Currently she is co-creating a next-gen "Foundation Relations" program with the University of Wisconsin's School of Medicine and Public Health; where she harnesses her experience in relationship building, project management, and nerdery. Fink earned a Bachelor's of Science in Natural Resources from University of Wisconsin-Madison, and a Master's of English & Communications from The City University of New York. She earned her CFRE (Certified Fund Raising Executive) in 2013.

**Jenni Jeffress, President Oscar Rennebohm Foundation**
Jennifer Jeffress joined the Oscar Rennebohm Foundation as President in January 2023. Jenni has a long history in the philanthropic field: She led Madison Public Library Foundation for 12 years, and as Director of Development & External Affairs, she supported the opening of the new Madison Children’s Museum in 2010. She also worked in Brooklyn, N.Y., at cultural and educational institutions. Jenni has a B.A. in Art History from the University of Illinois and an M.A. in Education from Tufts University.

**Sarah Endicot, DNP, Clinical Professor and the Director of the Doctor of Nursing Practice Program at the School of Nursing**
Sarah Endicott, DNP is a Clinical Professor and the Director of the Doctor of Nursing Practice Program at the School of Nursing. Dual certified in psychiatric mental health and geriatrics, she has extensive clinical experience caring for older adults across care settings. Dr. Endicott frequently collaborates with colleagues across disciplines in projects to strengthen and expand

the workforce to meet the needs of older adults, particularly people living with dementia and their caregivers. Dr. Endicott is a Fellow of the National Academies of Practice and was named a Distinguished Educator in Gerontological Nursing by the National Hartford Center of Gerontological Nursing Excellence.

**Alyssa Turnquist, BS, Research Program Manager**
Alyssa Turnquist is a Research Program Manager with the Wisconsin Research and Education Network (WREN) in the University of Wisconsin Department of Family Medicine and Community Health. She joined the department in 2018 after earning her Bachelor of Science in Kinesiology from the University of Wisconsin–Madison, spending six years as a Research Coordinator before advancing to her current role. At WREN, one of the nation's oldest and most respected practice-based research networks, Alyssa helps advance research and quality improvement efforts in real world primary care settings across Wisconsin.

## Concurrent Session 2, 11:00am – 12:15pm

### Session D: Working with infants and children

**Joan Jorgensen, DVM, PhD, Professor, School of Veterinary Medicine, Comparative Biosciences**

***Title:*** *Does a Brief Pause in Puberty Progression Have a Life-Long Impact on Behavior and Physiology? Lessons from a Rat Model*

**Abstract:** Extended-release Leuprolide Acetate (LA) depot suspension, a GnRH agonist, is widely used to suppress gonadal hormones and delay secondary sex characteristic maturation in cases of precocious puberty or gender dysphoria. Although widely used, little is known regarding long-term impacts on behavioral or physiological maturation following treatment. Therefore, the objective of this project was to establish a rat model of puberty blockade to monitor short- and long-term impacts on behavior and physiology. We hypothesized that LA depot would block puberty in both sexes and would only temporarily impact systemic health. To test this, male and female rats were administered LA or vehicle control once via subcutaneous injection just prior to onset of external features of puberty. Behavioral flexibility, learning, and short-term memory along with molecular and physiological status of a variety of organ systems were assessed at pre-puberty, late adolescent, middle-aged, and aged life stages. As expected, significant changes in physiological status were observed following treatment, but most changes rebounded with age following natural drug elimination. Behavior studies showed, however, that the single dose of prepubertal LA treatment resulted in decreased anxiety-associated behaviors in both male and female animals not only shortly after treatment, but surprisingly, until old age.

**Arun Karumattu Manattu, PhD, Scientist II, Pediatric Neuromodulation Lab, Waisman Center, Office of the Vice Chancellor for Research**

***Title:*** *Building a Study: Working with Infants in Research for a Multi-Modal Longitudinal Assessment of Infant Brain Organization after Early Brain Injury*

**Abstract:** At the Pediatric Neuromodulation Lab at the University of Wisconsin-Madison, our mission is to "empower children for life" through meaningful involvement of families in our

research. This flash talk covers the design and implementation of a clinical trial study in the first two years of life for infants who have had an early brain injury. This study aims to understand the relationship between recovery and development in early brain injury by using a multimodal approach of brain imaging, neuromodulation, and movement assessments.

Considerations for serving the infant participants vary based on the nature of the assessments. In the neuroimaging component, evening study visits are scheduled to align with participant's natural sleep schedule allowing for non-sedated imaging. For brain connectivity testing using non-invasive neuromodulation, the study team collaborates to maintain the participant's attention and engagement with the assessment. Consideration for movement assessments include scheduling the study visit at a time when the participant may be rested and engaged with active involvement.

We built a team of research professionals to ensure the smooth running of every component of study participation. This flash talk will detail considerations from a PI for building a research team for integrating family needs into the research space.

**Veronika Mak, MSc, Research Program Coordinator, Pediatric Neuromodulation Lab, Waisman Center, Office of the Vice Chancellor for Research**

***Title:*** *The 'Passport' to Research Participant Engagement: Integrating Families in a Research Journey*

**Abstract:** At the Pediatric Neuromodulation Lab at the University of Wisconsin-Madison, our mission is to "empower children for life" through meaningful involvement of families in our research, particularly during the crucial phase of early development and while navigating the uncertainties of a brain injury diagnosis and future prognosis. This session will highlight the importance of effective, clear, and meaningful communication with families for engagement in pediatric research.

Family-centered care, shared decision-making, transdisciplinary collaboration, and culturally responsive practices can be incorporated within pediatric research design. These techniques influence successful engagement and optimize the overall research participation experience for families, exemplifying how to conduct ethically sound and impactful research with an infant population.

This flash talk will detail the creation and use of a tool designed to facilitate communication between a pediatric research team and the longitudinal participant families of infants with an early brain injury. This tool guides families throughout each of the study visits in their research journey over the first two years of their child's life.

## Session E: Working with Older Adults

**Hosted by:** Center for Aging Research and Education
**Moderator:** Tonya Roberts, PhD, RN, FGSA, Associate Dean for Faculty Affairs, Associate Professor, Karen Frick Pridham Professor in Family-Centered Care, and Director of the Center for Aging Research Education

**Diane Farsetta, PhD, Outreach Program Manager, School of Nursing, Center for Aging Research and Education**

***Title:*** *Learning from Older Adult Research Advisors*

Abstract: Community advisory boards have been shown to improve the relevance, translatability, and dissemination of research. Older people's perspectives and lived experience are key to improving healthcare and extending the healthspan. Yet older adults are often underrepresented in research. Since 2022, the Madison and Rural Boards of Older Adult Advisors (BOAAs) have informed the work of researchers across disciplines and throughout the research process. Both BOAAs benefit from members' diverse personal and professional backgrounds, including caregivers, community leaders, farmers, and military veterans. Over three years, the BOAAs met with researchers across 13 UW-Madison departments, including Nursing, Food Science, Family Medicine and Community Health, Kinesiology, Design Studies, Engineering, and Geriatrics and Gerontology. Researchers have found BOAA input to be highly valuable. Six researchers have met with the BOAAs multiple times. Major themes in how BOAA members describe their experiences include: being listened to and valued, learning from each other, having a sense of community, and informing researchers about aging. In their own research agendas, Rural BOAA members prioritized aging in place well, social isolation and loneliness, and family and friend caregivers. The Madison BOAA prioritized improving communication in healthcare, reducing disparities in healthcare, and supporting family and friend caregivers.

**Gulustan Ozturk, PhD, Assistant Professor, College of Agricultural & Life Sciences, Food Science**

***Title:*** *Community-Engaged Design of a Clinical Nutrition Study Evaluating Dairy-Derived Choline in Postmenopausal Women*

**Abstract:** Choline is an essential nutrient required for brain function, liver metabolism, and cellular signaling, yet many adults in the United States do not meet recommended dietary intake levels. This gap may be particularly important for postmenopausal women, as estrogen supports endogenous choline synthesis through the phosphatidylethanolamine N-methyltransferase (PEMT) pathway. Following menopause, decreased estrogen levels may reduce this endogenous synthesis, increasing reliance on dietary sources of choline. Our study investigates whey protein phospholipid concentrate (WPPC), a dairy-derived ingredient rich in phospholipid-bound choline, as a potential dietary source of bioavailable choline. In a pilot randomized intervention study, postmenopausal women consume a daily beverage containing WPPC and are compared with a control group consuming whole egg, a gold-standard dietary source of choline. The study evaluates choline metabolism and related biomarkers through blood, urine, and stool analyses. Importantly, the study design incorporated input from the University of Wisconsin–Madison Board of Older Adult Advisors (BOAA), a community advisory group that partners with researchers working with aging populations. BOAA members reviewed recruitment materials, consent documents, and study logistics to improve clarity, accessibility, and participant experience. This community-engaged approach strengthened the design and implementation of the study while supporting more inclusive and participant-centered clinical nutrition research.

**Edith-Marie Green, PhD, NIA Graduate Trainee, School of Medicine and Public Health, Population Health Sciences**

***Title:*** *A Hidden Population: Managing Qualitative Fieldwork with Older Adults*

**Abstract:** The global population is aging rapidly, and older adults have a myriad of unique healthcare challenges. One of these is Alzheimer's Disease and Related Dementias (ADRD). Though ADRD cases are expected to triple by 2050, there is not yet a cure and pharmacological research has been unsuccessful; therefore, researchers are focusing on interventions on modifiable risk factors to prevent the disease. In my work, I use a mixed-methods, cross-cultural approach to study the relationship between loneliness and cognition. Older adults are more vulnerable to loneliness, a complex and subjective metric, and it has been linked to cognitive function. My qualitative fieldwork for this project includes semi-structured interviews with adults over the age of 65+ and participant observation in an adult day center. These older adults are profoundly impacted by ageism in society, which leads to resistance to ADRD diagnosis and withdrawal that can increase loneliness. In this flash talk, I discuss lessons learned from my research and advice for working with older adults, whether they have ADRD or not. Improving how we study vulnerable populations such as older adults allows us to be better informed in our research and design more culturally relevant interventions.

**Maichou Lor, PhD, RN, FAAN, Associate Professor, School of Nursing**

***Title:*** *Improving Pain Communication and Treatment Equity Among Hmong Older Adult Patients with Limited English Proficiency*

**Abstract:** Hmong older adult patients with limited English proficiency are consistently underrepresented in clinical research and experience disproportionate pain burdens compared to English-speaking adults. Poor patient-provider communication about pain due to language and cultural barriers impede effective pain assessment and treatment. No culturally-appropriate patient-interpreter-clinician pain communication tools exist to promote better mutual understanding of pain information and treatment for LEP patients. We developed a new Pain Assessment Visualization Tool with LEP Hmong older adult patients, interpreters, and clinicians, and conducted a pilot study. We found that the Pain Assessment Visualization Tool improved patient and clinician's mutual understanding about pain, shortened the time it takes to discuss patient's pain, and had positive effects in prescriptions related to medication and therapies for both chronic and acute pain management. Our study findings establish a foundation and methodological process before adapting this novel intervention to promote health equity and pain management for other older adult ethnic groups with LEP in the future.

**Kristen Pickett, PhD, Associate Professor, School of Education, Occupational Therapy Program, Department of Kinesiology**

***Title:*** *Mitigating Rural Health Disparities Through Accessible, Home-Based Interventions for Older Adults*

**Abstract:** Older adults, especially those in rural and underserved communities, face persistent and compounding barriers to healthy aging, including geographic isolation, limited access to healthcare and specialty services, financial constraints, and reduced availability of safe, structured opportunities for physical activity. We address these disparities through the development and evaluation of accessible, home based and telehealth delivered interventions tailored to the needs of rural seniors. Rural older adults living with Parkinson disease face profound challenges accessing evidence-based exercise and wellness resources, despite exercise being one of the known interventions to slow symptom progression. The Active@Home initiative delivers expert and community co-designed toolkits that support meaningful, in-home activity. Kits are paired with remote orientation sessions and telehealth follow-up, offering a low barrier, analog approach for those with limited digital access. This program aims to enhance physical and mental wellbeing while supporting sustainable engagement in daily activity. Targeted outcomes will include measures critical to healthy aging, including physical activity, gait and balance, falls, activities of daily living, mental health, social connectedness, and quality of life. This interdisciplinary work reflects our broader commitment to scalable, sustainable, community informed strategies that support independence, promote functional aging in place, and strengthen social engagement for older rural adults.

## Session F: Working with People with Disabilities

**Moderator:** Erin Bailey, PhD, Associate Director Community Engaged Research, Collective for Research Impact and Social Partnership

**Erik Jorgensen, AuD, Assistant Professor, College of Letters and Sciences, Department of Communication Sciences and Disorders**

***Title: Hearing loss is a hidden disability that affects more than just communication.***

**Abstract:** Hearing loss affects millions of Americans, and its consequences extend well beyond communication. People with hearing loss face elevated risks of loneliness, depression, and increased cognitive load during listening—effects that are more pronounced when hearing loss begins earlier in life. We argue that hearing loss leads to behavioral changes, particularly related to avoiding or disengaging in noisy social situations, where hearing loss has the largest effects. These behavior changes drive downstream negative psychosocial outcomes, but they are not inevitable; older adults with poor speech perception who use hearing aids show meaningful reductions in loneliness and depression, with greater time spent in noisy social environments driving further improvement. This talk highlights our recent work on the psychosocial burden of hearing loss across the lifespan and the potential for hearing aids to restore not just sound but social wellbeing.

**Rebekah Rodriguez, BA, Research Specialist, Waisman Center, Office of the Vice Chancellor for Research**

***Title:*** Adapting Study Procedures to Meet Individual and Family Needs: Lessons Learned from Research in Autism

**Abstract:** Individuals with disabilities comprise 28.7% of the US population (CDC, 2024), yet remain underrepresented in research. Researchers often report uncertainty about how to successfully adapt protocols or procedures for disabled persons (Passmore et al., 2026).

Reflecting on lessons learned from 20 years of conducting work with autistic youths, this talk presents recommendations and considerations for researchers to create more accessible and inclusive study protocols. At the core, we recommend that study teams strive to know participants as individuals, understanding their unique preferences, and using this knowledge to support them. Adopting the highlighted techniques and mentalities serves to benefit research teams and all study participants, those with disabilities and those without.

**Luis Columna, PhD, Professor, Kinesiology, School of Education**

**Title:** Building What's Missing

**Abstract:** As individuals with disabilities grow older, structured physical activity programs become increasingly scarce. What exists for children often disappears for teens and adults. The FIT Families program was created to address this gap by teaching parents how to promote physical activity and fundamental motor skills for their children with disabilities. Parents loved learning how to support their children, but through the process they realized something important. They wanted programs for themselves too. Mothers in particular told us they needed opportunities to focus on their own health and well-being. In response, we developed an exercise program designed specifically for mothers of individuals with disabilities. Now, those same families are telling us what is missing next. Their adolescents and adult children with developmental disabilities need physical activity programs too. We are currently building that program. Each phase of this work has been guided by families identifying what is missing, and their voices will continue to drive what we build next.

**Bobby Gibbs. Ph.D., Assistant Professor, College of Letters and Sciences, Department of Communication Sciences and Disorders**

***Title:*** *Neural Differences in Listening Strategies for Adults with Cochlear Implants*

**Abstract:** Cochlear implants are the standard of care for people with moderate to profound hearing loss who no longer benefit from hearing aids. Cochlear implants electrically stimulate neurons in the hearing nerve which sends sound signals to the brain. My lab studies how degeneration in the hearing nerve affects optimal listening strategies (picking out important sounds) through cochlear implants, especially in cases of background noise. By simulating cochlear implant sounds with different types of neural degeneration, we learn how neural differences shape the ways listeners pick out important sounds to understand speech masked by competing sounds. In general, cues associated with finer resolution (such as changes in sound level and frequency that distinguish different talkers) appear less viable with neural degeneration, even when listeners can detect these cues in quiet. This has important ramifications for noise reduction strategies, which generally do not account for neural differences. The broader goal of this research is to tailor noise reduction approaches in cochlear implants based on neurologically informed models.

## Concurrent Session 3, 1:30 – 2:45pm

### Session G: Places, Health and Aging

**Hosted by** Center for Demography of Health and Aging
**Moderator:** Michal Engelman, PhD, Director Center for Demography of Health and Aging, Professor, Dept of Sociology, College of Letters & Science

**Nan Wang, PhD, MS, Wisconsin Alzheimer's Institute, School of Medicine and Public Health**

***Title:*** *Sociodemographic and Comorbidity in Individuals with MCI or Dementia in Community Health Centers in the United States*

**Abstract:** Background: Community Health Centers (CHCs) serve approximately 10% of the U.S. population, disproportionately caring for individuals who are uninsured, low-income, rural, or from minoritized racial and ethnic groups. These populations are at elevated risk for Mild Cognitive Impairment (MCI) and dementia. Understanding their clinical and social needs is critical to ensuring emerging dementia interventions are equitable and generalizable. Methods: We conducted a cross-sectional study using electronic health record (EHR) data from the Oregon Community Health Information Network (OCHIN), which supports 151 CHCs nationwide. Adults aged ≥18 with ≥1 primary care visit (2023–2025) and ≥1 ICD-10 code for MCI/dementia were included.

Results: Among 3,937,685 adult patients, 34,763 (0.88%) had MCI/dementia. Nearly half were ≥75 years (45.2%), 30.1% were <65, 60.6% were female, 37.6% identified as non-White, and 18.5% as Hispanic. Cardiometabolic and neuropsychiatric comorbidities were common: hypertension (63.9%), hyperlipidemia (58.9%), diabetes (31.2%), and depression (42.6%). MCI alone accounted for 54.8% of cases. Among those screened for social determinants of health, 35.7% had at least one identified social need, most commonly financial strain and food insecurity.

Conclusion: CHC patients with MCI/dementia experience substantial medical and social burden, underscoring the need to integrate SDOH into dementia care and planning.

**Gisella Kagy, PhD, Assistant Professor, Consumer Science, School of Human Ecology**

***Title:*** *The Lasting Impact of Childhood Waterborne Lead Exposure*

**Abstract:** During the late nineteenth century, lead was a common material used to construct water infrastructure systems in the U.S., exposing millions of Americans to harmful levels of waterborne lead. This project explores the long-term effects of waterborne lead exposure on men's labor market outcomes using men observed in the full count 1940 census who are linked back to their childhood census records from 1900, 1910, or 1920, when they were ages 0-10. Our sample includes 6.2 million men from 971 unique towns. For arguably causal identification, we leverage variation in lead pipe adoption across cities and differences in the chemical properties of towns' water supplies, which interact to create environments of high and low lead leaching risk. We find that adult men with higher levels of waterborne lead exposure between ages 0-10 have 4% lower income and a 0.84 percentage point higher likelihood of being unemployed in their 1940 census observation. These men show diminished economic mobility as they sort into lower-paying occupations. Within occupations, individuals exposed to high lead leaching risk as children have 2.5%-3.7% lower wages than unexposed individuals in the same occupation.

**Meiyi Li, Graduate student, Dept of Sociology, College of Letters & Science**

***Title:*** *The Health Implications of Objective and Subjective Neighborhood Measures: New Insights from the REWARD Study*

**Abstract:** Growing evidence suggests neighborhoods “get under the skin” to influence biological aging. However, research has predominantly relied on objective neighborhood characteristics while overlooking subjective dimensions of neighborhood experience. Little is known about whether and how incorporating subjective neighborhood measures improves understanding of the biological aging process. Using three blood-based epigenetic clocks (GrimAge, PhenoAge, and DunedinPACE), spatiotemporally granular neighborhood exposures linked by residential history, and survey data regarding lived experiences, this study investigated how objective neighborhood disadvantages and subjective perceptions of neighborhood stress are associated with accelerating biological aging, comparatively and synergistically, across racial groups. Results show that both objective neighborhood disadvantages and subjective perceived neighborhood stress are important determinants of accelerated aging. Objective neighborhood disadvantages are associated with epigenetic age acceleration across three epigenetic clocks, while subjective perceived stress shows statistically significant associations with GrimAge acceleration, marginally significant associations with DunedinPACE, and non-significant relationships with PhenoAge acceleration. Moreover, results reveal racial differences in how subjective perceived neighborhood stress moderates the relationship between objective neighborhood disadvantages and epigenetic age acceleration. For White individuals, objective and subjective neighborhood measures operate as independent contributors to epigenetic age acceleration without significant interactions. For Black individuals, significant interactions emerged for GrimAge and DunedinPACE. In more advantaged neighborhoods, reducing perceived stress substantially slowed biological aging, but in severely disadvantaged neighborhoods, this protective effect largely diminished. These findings highlight the importance of incorporating both objective and subjective measures and the necessity of context- and population-specific interventions to promote healthy aging. For some populations, promoting individual stress management strategies are useful potential intervention. For others, effective efforts require place-based policies addressing broader issues including structural racism and upstream causes of neighborhood disadvantages, in addition to individual-level interventions.

**Tamkinat Rauf, PhD, Assistant Professor, Dept of Sociology, College of Letters & Science**

***Title:*** *Understanding the Role of Place in Suicide*

**Abstract:** Suicide is one of the top 10 leading causes of death in the United States and accordingly has been a topic of extensive research in biomedical and social sciences. This body of literature has informed an elaborate understanding of risk factors for suicide, including both individual-level and spatial context-specific factors. For instance, prior research has highlighted the importance of economic opportunity, social community, and mental healthcare access in shaping suicide risk. However, social disadvantages tend to cluster together. Research that only considers one aspect of a social context at a time might miss out on the possibility that certain combinations of disadvantages or threshold levels of stressful exposures may particularly heighten suicide risk. This project addresses this shortcoming of the literature by simultaneously examining relationships between a broad array of social conditions that are associated with suicide. Findings from this work will help develop a more comprehensive understanding aspects of certain spatial contexts that contribute to suicide risk in the populace, and provide insights into the specific disadvantages shaping suicide risk at different stages in the life courses of men and women. We hope these insights will help inform more strategic efforts towards suicide Prevention.

**Tawandra Rowell-Cunsolo, PhD, Associate Professor, School of Social Work, College of Letters & Science**

***Title:*** *Chronic health conditions among Milwaukee residents with legal system exposure*

**Abstract:** Wisconsin exceeds the national average in the share of residents exposed to the criminal legal system (CLS); individuals from Milwaukee County (MKE) represent a disproportionate share of the state's incarcerated population. Growing evidence suggests that CLS exposure has adverse consequences for physical and mental health. This study examines whether CLS exposure is associated with a greater burden of chronic health conditions among MKE residents. Using linked statewide administrative data, we analyzed a cohort of MKE residents enrolled in Medicaid in 2022 (n = 273,459). The sample was predominantly female (56.5%), Black (51.4%), and non Hispanic (80.7%), with an average age of 41 years (SD = 17.5). Nearly half (48.2%) had at least one chronic health condition, and 26.1% had a documented history of CLS exposure. We estimated multivariate logistic regression models to assess associations between CLS exposure and health conditions, adjusting for gender, age group, race, and ethnicity. MKE residents exposed to the CLS had 24% higher odds of having at least one chronic condition and 35% higher odds of having a mental health condition compared with residents with no CLS exposure. These findings underscore the substantial health burden among MKE residents with CLS exposure and the need for health-focused interventions

**Mai See Thao, PhD, Assistant Professor, Anthropology, College of Letters & Science**

***Title:*** *The invisible and racialized labor of culturally sensitive care: A Hmong nursing home case study*

**Abstract:** Racially and ethnically minoritized NH residents disproportionately experience poorer quality of life and care. Workplace initiatives addressing health disparities often promote culturally sensitive care (CSC) as a solution, tailoring care to residents' cultural characteristics that include norms, values, beliefs, and social-historical experiences. Yet, CSC theories lack empirical data and assume health providers are members of the normative/majority racial/ethnic group. NH careworkers are often immigrants and women of color. Our case study applies an intersectional examination of CSC as practiced by racially/ethnically minoritized careworkers caring for racial/ethnically concordant NH residents. Drawing on ethnographic research conducted in 2017 in a U.S. Midwest NH with a high proportion of Hmong residents and staff, we frame CSC as carework that is invisible and racialized labor. From our findings, we provide a prospective model of CSC consisting of 1) negotiating the whiteness and biomedicalization of NH culture, 2) generative labor of educating majority NH staff and activating racially/ethnically minoritized residents and family while facing constraints, and 3) emotional (dis)regulation of performing CSC. We argue that CSC overlooks the intersectional dynamics that shape and constrain the labor of "making care culturally sensitive."

## Session H: Immunology as personalized medicine

**Margaret Alexander, PhD, Assistant Professor, School of Medicine and Public Health, Medical Microbiology and Immunology**

***Title:*** *How Diet and Gut Bacteria Influence Multiple Sclerosis*

**Abstract:** Dietary interventions such as ketogenic diets (KDs) improve outcomes in multiple sclerosis (MS), but the mechanisms underlying patient-specific responses remain unclear. We investigated how KD-induced changes in the gut microbiota mediate immune modulation and

neuroprotection. Building on prior work showing that the microbiota and the ketone body β-hydroxybutyrate (βHB) are necessary and sufficient for KD-mediated protection, we focused on indole lactate (ILA), a metabolite produced by KD-enriched Lactobacillus.
Using Lactobacillus and Clostridium mutants lacking ILA synthesis (ΔArAT), we tested the requirement for microbial ILA production in experimental autoimmune encephalomyelitis (EAE), a mouse model of MS. Loss of microbial ILA significantly reduced T helper 17 (Th17) cell suppression and diminished disease protection. In vitro assays demonstrated that ILA directly inhibits Th17 differentiation. Mechanistically, we found that ILA activates the aryl hydrocarbon receptor (AhR), a transcription factor that regulates T cell fate. Pharmacologic inhibition of AhR abrogated ILA-mediated Th17 suppression in vitro and reduced its therapeutic efficacy in EAE. Together, these findings identify microbial ILA production and AhR-dependent immune modulation as key mechanisms underlying KD-induced neuroprotection, providing a mechanistic framework for diet–microbiota–immune interactions in MS.

**Claire O'Leary, PhD, Assistant Professor, School of Medicine and Public Health, Dept. of Allergy, Immunology & Rheumatology**

***Title:*** *Tuft cells integrate microbial signals in the GI tract to promote tissue function*

**Abstract:** Tuft cells are rare epithelial cells distributed along mucosal surfaces of mammals. They are uniquely equipped with receptors for microbial and dietary metabolites and release mediators to influence immunity and epithelial barrier integrity. Their functions in homeostasis and chronic disease remain incompletely understood; whether they can be activated therapeutically is unexplored. Our research has defined novel roles for tuft cells in the biliary tree, where they integrate microbial cues to regulate local inflammation. We have extended these studies into the small intestine, where tuft cells sense microbial metabolites and orchestrate downstream immune responses. Using mouse models, patient samples, and ex vivo assays, we are dissecting how tuft cells regulate barrier integrity and immunity in response to microbiome and diet. By defining tuft cell pathways that sustain mucosal health, we aim to uncover strategies for restoration of epithelial homeostasis in disease.

**Dudley Lamming, PhD, Associate Professor, School of Medicine and Public Health, Dept. of Endocrinology, Diabetes and Metabolism**

***Title:*** *Branched-chain amino acids and healthy aging*

**Abstract:** The branched-chain amino acids (BCAAs) leucine, isoleucine, and valine are elevated in the blood of obese and insulin-resistant rodents and humans. We will discuss recent findings demonstrating that dietary restriction of the BCAAs or of isoleucine or valine alone extends mouse healthspan and lifespan, while supplementation of BCAAs leads to obesity and reduced longevity. We will discuss potential mechanisms by which BCAA restriction promotes healthspan and longevity in mice. Finally, we will discuss data suggesting that dietary BCAAs affect health and lifespan in humans.

**Jenny Gumperz, PhD, Professor, School of Medicine and Public Health, Department of Medical Microbiology and Immunology**

***Title:*** *Driving anti-tumor immunity using a cell therapy tailored to specifically activate patient defenses*

**Abstract:** Immunotherapies that engage patient immune responses to fight cancer hold the promise of clearing cancer cells in a highly specific manner and preventing their return by maintaining immunological memory against them. A central barrier to achieving these goals is the ability of cancers to suppress immune cells. The current "gold standard" immunotherapy approach is to use antibodies to block the suppressive pathways (a strategy called "checkpoint inhibition"). This can be effective at enabling patient immune cells to fight the cancer, but the activated immune cells are not necessarily specific for the cancer and in some cases they cause significant pathology elsewhere in the body. My lab is working to develop a strategy where the patient's killer T lymphocytes will be activated in a highly specific manner, resulting in targeted killing of tumor cells. To do this, we make use of a type of immune cell ("dendritic cell", or "DC") that is responsible for selectively activating T cells. We boost the activity of the DCs using a unique type of lymphocyte (iNKT cell) that can powerfully amplify immune responses against cancer and infections. We have shown that combining these two cell types is highly effective for activating tumor-specific human T lymphocytes from individuals bearing aggressive cancers.

**Gustavo Caballero-Flores, PhD, Assistant Professor, School of Medicine and Public Health, Department of Medical Microbiology and Immunology**

**Title:** Antibody (Ab) functional redundancy and compensation are incompletely understood due to absence of genetic models lacking Ab pairs

**Abstract:** Forthcoming

## Session I: Adaptations for Aging - Modifying our Everyday for Living/Equity

**Paula Voorheis, PhD, Assistant Professor, School of Pharmacy, Clinical Practice, Innovation, and Research**

***Title:*** *Designing Human-Centered Digital Health in the Age of AI*

**Abstract:** Digital health and AI tools are now part of everyday care. From apps that assess infant development to chatbots that help caregivers of older adults, technology is shaping health across the lifespan. Yet many of these tools are hard to use or do not fit into real life. Too often, patient and clinician feedback, if collected at all, is gathered once at the start of a project and not used as technologies change.

The BUILD Lab at UW–Madison has been developing a novel approach to keep people at the center of digital health innovation across the lifecourse. We are building a software platform called “Nudgi” that helps digital health innovation teams quickly and meaningfully gather and use feedback from patients, caregivers, and clinicians as technologies are designed. Nudgi uses AI and an evidence-based human-centered process to recruit participants, collect usability feedback, highlight key issues, and turn findings into clear recommendations for technology improvement.

We are testing Nudgi with UW-affiliated partners across the lifespan: CranioSure (infant cranial screening), Humin (adult mental health and wellbeing), and CuroNow (care coordination for older adults). Our goal is simple: to ensure digital health innovations evolve with real human needs at every stage of life.

**Jeevan Ramesh Jayasuriya Arachchige, College of Engineering, Industrial and Systems Engineering**

***Title:*** *Predicting Gait Instability Under Simulated Vestibular Impairments*

**Abstract:** Age-related vestibular disorders increase fall risk by degrading otolith and semicircular canal function, rendering vestibular cues unreliable and forcing greater reliance on visual and proprioceptive inputs (Agrawal et al., 2009). Because falls often occur with little warning, there is a critical need to predict impending gait instability to enable timely interventions and assistive solutions that can help vulnerable populations maintain balance and avoid injury. Directly studying instability in older or clinical groups, however, is constrained by safety and feasibility concerns. Galvanic vestibular stimulation (GVS) offers a controlled and safe way to perturb vestibular input and reproduce key features of dysfunction without exposing high-risk individuals to harm (Moudy et al., 2024).

To address this need, we developed a model to predict gait instability during tandem walking. Forty-eight healthy adults completed vestibular-perturbed trials while full-body kinematics and muscle activity were recorded. Margin of stability, EMG features, and inertial measures were integrated into a multi-horizon temporal convolutional network to predict instability 0.4–1.2 s before onset. AUROC ranged from 0.77 (0.4 s) to 0.66 (1.2 s), with accuracy from 0.69 to 0.58. Precision–recall performance exceeded event-rate baselines despite the low prevalence of instability (Figure 1), reflecting the challenges of rare-event prediction.

These findings demonstrate the feasibility of combining controlled vestibular perturbations with predictive modeling to enable early detection of instability, a key step toward developing real-time monitoring systems, assistive devices, and targeted interventions aimed at preventing falls in aging and vestibular-impaired populations.

**Laura Prieto, Postdoctoral Trainee, School of Medicine and Public Health, Department of Family Medicine and Community Health**

**Title:** Virtual Dance Revolution? Reimagining Access to Community-based Exercise for Latino/as with Parkinson Disease and their Care Partners

**Abstract:** Community-based exercise and dance improve the quality of life for people with Parkinson disease (PD) and their care partners (CPs). Latinos with PD have less well-managed symptoms and are underrepresented in PD research, making it essential to understand their experiences accessing exercise and dance programs.

This descriptive qualitative study identified how Latinos with PD and their CPs in the US access and participate in exercise and dance programs. Participants included 24 Latino people with PD and 18 CPs. They completed demographic questionnaires and two semi-structured interviews about the impact of PD on daily life and their exercise and dance experiences. Interviews were transcribed, and then analyzed using reflexive thematic analysis.

Findings highlight the lack of personalized classes, a fear of judgment at non-PD programs, challenges with time and cost, and virtual participation in group classes as an opportunity. Group exercise was often not feasible due to care and financial challenges, although CPs and people with PD were interested in participating in the possibility of a dance program with their loved one. Virtual dance programming is a future research area that can be inclusive of CPs and increase access for the Latino PD community.

## Session J: On Thriving, Wellbeing and Longevity

**Moderator:** Grant Nelsestuen, PhD, Associate Dean for Arts and Humanities, College of Letters & Science, Professor of Classics, Classical and Ancient Near Eastern Studies (CANES)
**Panelists:** Jenell Johnson, Dana Landress, Jesse Waggoner, Claire Wendland

**Jenell Johnson, PhD, Professor, Communication Arts, College of Letters & Science**
Jenell is a Professor of Communication Arts whose research interests include the rhetoric of health and medicine, science and technology studies, disability studies, bioethics, and environmental communication. Her research focuses on the circulation of scientific and medical information in the public sphere, with an emphasis on the social and political dimensions of nonexpert engagement with science, medicine, and technology. Much of her work has explored the meaning of neuroscience, psychiatry, and mental disability in scientific and cultural contexts. These interests are best illustrated by her book American Lobotomy, which explores how representations of psychosurgery shaped the rise, fall, and return of lobotomy in US medicine, and the co-edited collection The Neuroscientific Turn, a collection of essays from humanists and scientists reflecting on the growth of the neuro-disciplines. Her newest book, Every Living Thing, examines how life itself is used to create ethical and political connections between humans and other living creatures—on Earth and beyond. To that end, her new line of research concerns public engagement with space science, particularly in the decade after the Apollo program. The Holtz Center has been one of her intellectual homes from the day she stepped foot on the UW-Madison campus in 2010. As someone from a humanities field who was often the only person in her department working on issues related to science and medicine, she found camaraderie with people in the Center who were asking similar kinds of questions. The Holtz Center is a unique place at UW-Madison, and as director, she hopes to continue work to create community and connections between faculty, staff, and students who are interested in how science, technology, and society shape each other.

**Dana Landress, PhD, Assistant Professor, Medical History and Bioethics, School of Medicine and Public Health**
Is a historian of 19th and 20th century medicine and public health in the United States. Her research examines the relationship between nutritional disease, community health work, and the political economy of capitalism in the U.S. South. Methodologically, Dana's research blends the approaches and insights of social history, labor history, and oral history. She is especially interested in histories of structural racism, economic inequality, and community health activism as they pertain to patient encounters with medicine and public health. Additionally, she studies histories of southern foodways, diasporic culinary traditions, and medicinal remedies of the rural South. Currently, Dana is at work on two projects. Her first book (under contract with the University of Chicago Press) details the social history of pellagra, a nutritional deficiency disease, and its prevalence in the U.S. South across the early 20th century. She is also at work on an edited volume (under contract with the Vanderbilt University Press) which features the collaborative work of scholars, activists, and healthcare providers to document community healthcare interventions across the U.S. South in the wake of the Covid-19 pandemic.
Dana's writing has been featured in The Journal of the History of Medicine and Allied Sciences, The Journal of the American Medical Association, Gastronomica: The Journal of Food Studies, and is forthcoming in the Journal of Southern History. She currently serves as an advisory editor for Isis: A Journal of the History of Science Society.

**Jesse Waggoner, PhD, Assistant Professor Gender & Women's Studies, College of Letters & Science**

J. Waggoner is an Assistant Professor in the Department of Gender & Women's Studies and English at UW-Madison. Waggoner's research and teaching interests span U.S. literature and culture, feminist disability studies, queer and trans studies, health activisms, and African American studies.

Their first book, Black Crip Modern: Race, Gender, and the Roots of Disability Consciousness, is forthcoming from New York University Press's "Crip: New Directions in Disability Studies" series in Summer 2026. They are currently at work on their second project, Queer Ableisms and the Persistence of Cripqueer Life, which explores both unique forms of ableism within queer and trans cultures, and how disabled queer people have developed creative strategies of resistance. Their research has been supported by the National Endowment for the Humanities, the Coordinating Council on Women in History, the Schlesinger Library on the History of Women in America, Smith College's Sophia Smith Collections, the Modernist Studies Association, UW's Institute on Research in the Humanities, and the American Association of University Women.

**Claire Wendland, PhD, Professor, Anthropology, College of Letters & Science**

Claire Wendland is professor of the Department of Anthropology in the College of Letters and Science. As a medical anthropologist, Wendland focuses on the globalization of biomedicine, particularly in Africa. Related work includes the anthropology of reproduction, sexuality and the body. Her first book, "A Heart for the Work: Journeys through an African Medical School," was published by the University of Chicago Press in 2010. That book explores the experiences of medical students learning to be doctors in Malawi, and argues that their responses challenge several longstanding assumptions about biomedicine and about African healing.

Wendland's research also looks at changing concepts and loci of risk in childbirth in southeast Africa, in a setting in which very high maternal mortality rates force professionals and lay people alike to develop explanations for the link between birth and death. She seeks to understand how the narratives of maternal death they produce reflect experiences of a rapidly changing social, economic, and biomedical context.

Wendland teaches an introductory course in medical anthropology, a graduate seminar in anthropology and international health, and various courses in the anthropology of Africa and in general cultural anthropology. She also has an interest in ethics and has taught both anthropological ethics and bioethics courses.

## Graduate Posters

**Presenting Author: Travis Austin, BS, Master of Public Affairs, La Follette School of Public Affairs**
**Title:** The Wisconsin HIV Drug Assistance Program: A Cost-Benefit Analysis
**Abstract:** The Wisconsin HIV Drug Assistance Program (WI HDAP) is a safety-net program for People Living with HIV in Wisconsin. The program seeks to ensure access to Antiretroviral Therapy and medical insurance for those who lack sufficient ability to cover healthcare costs. WI HDAP is dealing with the risk of decreasing funds and rising expenditures, threatening to cause a persistent budget deficit. We consider three policy alternatives for our cost-benefit analysis: 1) Covering Different Affordable Care Act Metal Levels, 2) Expanding Insurance Application Assistance, and 3) Initiating a Client Waitlist.
By conducting a time series budget forecast, our analysis shows that Alternative Two yields the highest present value of net benefits over the next five years (2026 to 2030). Expanding insurance application assistance is estimated to generate $25,731 in marginal savings for WI HDAP per newly insured client each year, totaling an estimated $28.8 million in net benefits for newly insured clients over the five year period. Our Monte Carlo sensitivity analyses confirm that Alternative Two persistently outperforms Alternatives One and Three, which would result in an estimated $2.5 million and -$186.4 million in net benefits, respectively.

**Presenting Author: Katy Bray, BS, Kinesiology: Occupational Sciences, School of Education**
**Title:** The Influence of Rurality on Parental Perception via Patient Reported Outcome Measures
**Abstract:** Rural adults and children have poorer health and physical activity (PA) outcomes likely due to several factors, including their decreased access to health-promoting resources. While parent-proxy measures have their limitations, parent perceptions drive healthcare utilization for pediatric populations. Therefore, understanding how parents are reporting health outcomes in rural vs non-rural settings is an essential component of understanding healthcare utilization. Using a large dataset of the Patient-Reported Outcome Measurement Information System (PROMIS), statistical differences of PROMIS scores and demographics were compared between the sample's rural and metropolitan participants The PROMIS Pediatric Parent-Proxy measures of Global Health and PA were included in the analysis. Differences were found between groups.
While the PROMIS tools may indicate differences between rural and non-rural respondents, the causative mechanisms underlying these differences cannot be definitively determined without further study. Parent perception is important to track and measure, as a parent's perception of their child's health is what facilitates healthcare utilization and participation. Therefore, understanding what is driving these group level differences is essential for improving rural healthcare and healthcare utilization. PROMIS has the potential to standardize patient reported outcomes across disciplines; however, this is only useful if the data accurately identify actionable health outcomes.

**Presenting Author: Xiaoxuan "Alicia" Cheng, Industrial & Systems Engineering - Human Factors & Health Systems Engineering, College of Engineering**
**Title:** Co-Designing a Clinical Decision Support for Driving Safety Decisions After Hospitalization
**Abstract:** For many in the United States, vehicle driving represents transportation independence across the life course. After critical illness, driving status may be affected by physical, psychological or cognitive changes. New driving cessation, even temporarily, can be associated with social isolation, depressive symptoms and diminished autonomy. Decisions and

confidence to return to driving after critical illness can also be affected for months or years. In this longitudinal study, consent was obtained from 24 ICU patients (IRB-023040). We collected 6-months of driving data from their personal vehicles, including geospatial measures and near-crashes. We used the driving data to design a driving safety report for patients and clinicians evaluating driving decisions after critical illness. Following initial prototype development, we conducted two co-design iterations with 12 stakeholders (e.g., clinicians, patients, family members). Stakeholders provided feedback using semi-structured think-aloud interviews. Interviews were transcribed and inductively analyzed for design improvements. Content improvements included visualization descriptions, self-awareness building, and cues for driving evaluation discussions. Presentation improvements included figure scaling, visual coding for information differentiation, and re-sizing. Stakeholders endorsed a 2-page driving safety report as relevant for patient-clinician decision-making. This represents the first appraisal of an evidence-based driving decision-making tool responsive to new onset clinical changes.

**Presenting Author: Freya Joëssel, PhD, Department of Psychology, College of Letters & Science**
**Title:** How Do Prior Knowledge and Directed Attention Tasks Affect the Restorative Effect of Plants?
**Abstract:** The constant cognitive activity required by today's modern world has a very real impact in terms of cognitive fatigue, with detrimental consequences to our mental health (e.g. burn-out). It is thus crucial to design environments and interventions supporting our mental well-being throughout the lifespan.
Attention Restoration Theory posits that looking at and waking in natural areas causes our directed attention to temporarily disengage, allowing in turns its resources to be replenished. However, it remains unclear how (1) this restorative effect might be modulated by the way one engages with natural environment (passive – e.g. looking at landscapes - or active – e.g. gardening), and (2) how this effect might modulated by individual factors such as plant knowledge, living environment, and environmental sensitivities.
In this study, sustained attention was measured before and after viewing pictures with trees under 4 condition: no instructions, passive viewing, passive viewing with prior information about the trees, and active interactions with the pictures. We hypothesize that while prior knowledge about the trees will enhance the restoration effect, active task demands while viewing the pictures will reduce it by not allowing attention to fully disengages. Implications for wellness interventions, urban design, and public spaces interior design, will be presented.

**Presenting Author: Hailey Johnson, Computer Sciences - Human Computer Interaction, College of Letters & Science**
**Title:** Designing Accessible Technology with Adults with Down Syndrome
**Abstract:** Adults with Down syndrome (AwDS) increasingly engage with digital technologies to support daily living, yet many systems remain misaligned with their lived experiences, preferences, and support needs. This empirical research examines how AwDS interact with technology across everyday life, financial decision-making, and online security and privacy contexts. Using qualitative interviews, participatory methods, and hands-on technology probes, the studies investigate how AwDS understand system feedback, recover from errors, and make decisions in situ. Findings show that AwDS actively use both mainstream and assistive technologies but frequently encounter breakdowns when system language, feedback, or timing do not align with real-world tasks. Participants relied on concrete visual cues and familiar concepts to interpret system behavior, and often verified decisions by cross-checking digital information with physical artifacts or trusted support persons. Across studies, support was most effective when it was brief, contextual, and connected to the user's current goal rather than delivered as upfront instruction. Comparisons across gamified, augmented reality, tangible, and

notification-based systems revealed that design choices shape whether users rush, over-trust automation, or pause to check their work. These findings underscore the need for designs that make system state legible, support recovery in the moment, and preserve autonomy within interdependent use.

**Presenting Author: Tingkai Qi, MS, Department of Kinesiology - Occupational Science, School of Education**
**Title:** Forced Head Rotation in Dual-Task Gait: A Comparison of Physical and Augmented Reality Environments
**Abstract:** Introduction: Real-world mobility often involves dual-tasking, particularly walking while scanning the environment to identify hazards. However, traditional dual-task paradigms rarely require active physical head rotation to access information. To address this, we first developed a laboratory-based paradigm that couples cognitive load with forced head rotation. Subsequently, A matched Augmented Reality (AR) implementation was created to replicate this structure within a flexible semi-immersive environment. While AR offers advantages for manipulating scanning demands, its validity relative to the physical setting needs evaluation.
Method: Healthy young adults complete four randomized blocks in matched physical and AR (Meta Quest 3) environments: (1) single-task walking; (2) walking with lateral cue identification; (3) walking with centrally presented arithmetical calculations; and (4) walking with arithmetical calculations presented laterally. In the physical condition, privacy-filtered monitors strictly enforce visual scanning.
Expected Results & Application: We anticipate dual-task costs across conditions, with the lateral head-turning arithmetic condition showing the most significant cognitive-motor interference. We expect the AR environment to show a similar interference pattern. Secondary feasibility outcomes (e.g., simulator sickness, tolerability) will evaluate system readiness and its suitability for populations with mobility or balance impairments, including future investigation in older adults.

**Presenting Author: Run Lin Song, Statistics, School of Computer, Data & Information Sciences, College of Letters & Science**
**Title:** Association between biological age, brain age and mental health outcomes: a secondary data analysis from the Midlife in the United States (MIDUS) study
**Abstract:** Chronological age does not fully capture heterogeneity in the aging process. Epigenetic clocks, such as Horvath, Horvath2, Hannum, PhenoAge, GrimAge, GrimAge2, GrimAge1v2, Dunedinpace have demonstrated improved ability to reflect physiological decline and predict health outcomes such as mental health. These measures provide an opportunity to move beyond time since birth toward biologically meaningful indicators of aging. Using data from the Midlife in the United States (MIDUS) study, we investigate whether accelerated biological aging, defined as divergence from chronological age, is associated with mental health outcomes. Our framework integrates multidimensional biological information to predict biological age and further explores potential factors that contribute to variation in aging rates across different race/ethnicity groups. We also compare biomarker-based biological age estimates with established epigenetic clocks, including Horvath, Horvath2, Hannum, PhenoAge, GrimAge, GrimAge2, GrimAge1v2, Dunedinpace as well as neuroimaging-derived brain age metrics. This comparison aims to evaluate concordance across aging domains and to understand whether different biological systems capture shared or distinct aspects of the aging trajectory.