UMass Chan MEDICAL SCHOOL Population and Quantitative Health Sciences

Weekly Newsletter May 19-23, 2025

PQHS NEWS

ANNOUNCEMENTS

Research Methods Meeting Wednesday, May 21, 10:00-11:00 AM

Presenter: Mariel M. Finucane, PhD

Title: Improving the Accuracy of Race/Ethnicity Imputations Using Bayesian Machine Learning

Authors: Mariel M. Finucane, Daniel R. C. Thal, Anthony Sisti, Mark W. Friedberg

Abstract: Accurate and complete race/ethnicity data are central to measuring and reducing health inequities, but self-reported race/ethnicity data generally are incomplete for health plans. High-quality imputations are therefore critical. In this talk, we present a Bayesian machine learning imputation model that improves imputation accuracy compared to existing approaches by flexibly integrating information from all available data sources without being constrained by assumptions of linearity or additivity. Our method enables more precise measurement of inequities, ultimately enhancing the effectiveness of health equity programs.



Bio: Dr. Mariel Finucane is the Director of Statistical Methods at Blue Cross Blue Shield of Massachusetts. She is a collaborative statistician and health services researcher, with expertise in heterogeneous treatment effects, generalizability, quality measurement, and Bayesian adaptive and factorial design. She has published widely, including first-author papers in the *Journal of the American Statistical Association, Statistical Science, Statistical Methods in Medical Research*, and *the Journal of Evaluation*; a first-author *Lancet* article on global trends in body mass index has been cited 6,000 times. Dr. Finucane holds a Ph.D. in biostatistics from the

Harvard School of Public Health. To join the meeting click <u>here</u>.

Dissertation Proposal Presentation and Oral QE Thursday, May 29, 9 AM - 10 AM

Location: AS9-2072 and Zoom, click here



Presenter: Mary R. Lee, 2nd year PhD student. Mentored by Sarah Forrester, PhD **Title:** Structural Inequities and Cardiovascular Health: Examining the Effects of Residential Segregation and Social Vulnerability among Black Adults of the CARDIA Study **Description:** Cardiovascular disease (CVD) has been the leading cause of death in the U.S. for over a century, but its burden is not equitably distributed. Non-Hispanic Black adults experience significantly higher rates of CVD-related mortality, including 4–5 times higher hypertension-related deaths and greater stroke risk, compared to non-Hispanic White adults. These disparities are not solely due to individual behaviors, but stem from structural inequities—such as residential segregation and social vulnerability—that shape

cardiovascular risk across the life course. This dissertation research proposal investigates how key upstream structural determinants, specifically, neighborhood residential segregation (a result of historically discriminatory housing policies) and social vulnerability, contribute to CVD outcomes and cardiovascular health risk factors among non-Hispanic Black adults in the Coronary Artery Risk Development in Young Adults (CARDIA) Study. **Qualifying Exam Committee:**

ShaoHsien Liu, MPH, PhD (Chair), Rob Goldberg, PhD (General Examiner), JungAe Lee, PhD, Bill Jesdale, PhD (Committee Members)

Dissertation Proposal Presentation and Oral QE Thursday, May 29, 12:30 – 1:30 PM Location: AS9-2072 and Zoom, click <u>here</u>.



Presenter: Nathaniel Glassy, ALM is a second year Ph.D student in the Population Health Sciences Program and a TL1 Predoctoral Fellow at the UMass Center for Clinical and Translational Science at UMass Chan Medical School. He is mentored by Bo Wang, PhD and Jeroan Allison, MD, MS.

Title: Adolescent Risk-Taking Behaviors: Exploring How Social and Motivational Factors Shape Interconnected Risks of Delinquency, Substance Use, and Sexual Risk Taking **Description:** This study leverages longitudinal data from over 2,500 Bahamian adolescents to model how risk behaviors evolve in tandem over time. Using group-based multi-trajectory

modeling, the project examines how distinct patterns of risk behavior are shaped by early social-contextual influences (e.g., parental monitoring, peer norms, neighborhood risk) and cognitive-motivational factors rooted in Protection Motivation Theory. Findings aim to inform targeted, culturally relevant HIV prevention strategies for high-risk youth populations.

Qualifying Exam Committee: Stephenie Lemon, PhD (Chair), Robert Goldberg, PhD (General Examiner), Anthony Nunes, PhD (Committee Member), William Jesdale, PhD (Committee Member)

Dissertation Proposal Presentation and Oral QE

Friday, May 30, 11 AM - 12 PM

Location: AS9-2072 and Zoom, click here

Presenter: Natalia Nielsen, 2nd year PhD student. Mentored by Kate Lapane, PhD and Maira Castañeda-Avila, PhD. **Title:** Investigating the relationship between language barrier and depression among older Latino adults in US nursing homes

Description: Leveraging individual-level data from the nationally representative MDS 3.0 and publicly available data from Nursing Home Compare and Provider of Service datasets (facility level) and the American Community Survey (regional level) we seek to better understand the mental health of Latino nursing home residents with limited English proficiency.

Qualifying Exam Committee: ShaoHsien Liu, MPH, PhD (Chair), Rob Goldberg, PhD (General Examiner), David Dosa, MD, MPH and Jonggyu Baek, PhD (Committee Members)

Dissertation Proposal Presentation and Oral QE

Friday, May 30, 1 PM - 2:30 PM

Location: AS9-2072 and Zoom, click here



Presenter: Heeyoon (Melissa) Jung, 2nd year PhD student. Mentored by Dr. Kate Lapane **Title:** Gabapentinoids Use for Pain and Associated Safety Risks Among Older Adults in Nursing Home

Description: The proposal will present research aims on the use and comparative safety of gabapentinoids co-prescribed with opioids in nursing homes, using the Minimum Data Set 3.0 and Medicare claims data.

Qualifying Exam Committee: Shao-Hsien Liu, MPH, PhD (Chair), Robert Goldberg, PhD (General Examiner), David Dosa, MD, MPH and Jonggyu Baek, PhD (Committee Members)

NHLBI-funded Transdisciplinary Training in Cardiovascular Research Program (T32)



Directed by Catarina Kiefe, MD, PhD (PQHS) and Kevin Donahue, MD (Cardiovascular Medicine), the **NHLBI-funded Transdisciplinary Training in Cardiovascular Research Program (T32)** is currently accepting applications for **post-doctoral trainees**. Please visit <u>PQHS - Transdisciplinary Training in Cardiovascular Research T32 Training Program</u> for more information on this opportunity." Questions? Contact Rebecca Gigliello (<u>Rebecca.gigliello@umassmed.edu</u>)

SHOUT OUT



The Women's Faculty Committee announced its 2025 annual awards. Congratulations to Jamie Faro, PhD, MS, for receiving the Early Career Achievement in Science and Health Award. The awards ceremony will be held on Thursday, May 22, 11 AM – 1 PM in the ASC Cube (3rd floor).

Both virtual & in-person options for participation will be provided. In-person gathering will begin at 11:00am; Virtual program will begin at 11:30. **REGISTER**

BOOK CORNER



The book corner is brought to you by the PQHS Diversity Action Committee. We will highlight a book of interest each month. This month is "The Sum of Us" written by Heather McGhee.

Ever wonder why it feels like progress for some means less for others? In The Sum of Us, Heather McGhee dives into the idea that we're stuck in a zero-sum mindset—and how that thinking holds everyone back. Through powerful stories and eye-opening insights, she shows how racism hurts more than just those directly affected and how working together actually benefits us all. It's a thought-provoking, hopeful read that might just change the way you see fairness, progress, and community.

UMASS CHAN REMINDERS

Use Your Excess Vacation Leave by June 28

As we get closer to fiscal year end, we want to remind you of the <u>UMass Chan Holiday</u>, and <u>Personal and Vacation</u> <u>Time Policy</u> and maximum accruals so you can plan accordingly. The maximum number of vacation hours employees may carry over into the next fiscal year is 240. During the fiscal year, employees are allowed to accrue hours over 240. Hours over this accrual limit are automatically re-set in the payroll system to the accrual maximum.

Holiday Calendar for UMass Chan Medical School

Remaining Holiday Schedule for 2025:

- Memorial Day Monday, May 26th
- Juneteenth National Independence Day Thursday, June 19th
- Independence Day Friday, July 4th
- Labor Day Monday, September 1st
- Indigenous Peoples' Day Monday, October 13th
- Veterans Day Tuesday, November 11th
- Thanksgiving Day Thursday, November 27th
- Day After Thanksgiving Friday, November 28th
- Christmas Eve Wednesday, December 24th
- Christmas Day Thursday, December 25th

PQHS Weekly will be sent to all members of PQHS on Monday mornings. The intent is to provide a snapshot of what is going on that week in PQHS and to share our faculty and staff activities with the department. We depend on you to provide the items we need to share. Please send suggestions of events, faculty invited seminars & talks, honors, student thesis presentations, and news – new babies born! – to Judi (judi.saber@umassmed.edu) & Sarah (sarah.yeboah@umassmed.edu) by Friday each week.

