

DEPARTMENT OF EPIDEMIOLOGY AND BIostatISTICS

EPIBIO NEWS

DEPARTMENT NEWSLETTER FALL 2026

RESEARCH, SEMINARS, FUNDING, STUDENT AWARDS, AND MUCH MORE

Exciting New Developments in Faculty Research



Dr. Kelly Hirko – Working with medical students and clinical partners at MSU's Rural Medical Campus, our team examined health care utilization among people experiencing homelessness in Northwest Michigan. We found that emergency department visits and hospitalizations were driven largely by mental and behavioral health conditions and varied with seasonal weather patterns, while greater shelter availability was associated with fewer hospitalizations. This work demonstrates how partnerships with rural health and community organizations can help address important issues affecting our communities. (PMID: 42605650)

Dr. Evan Reynolds received funding from the Michigan State University + Henry Ford Health Cardiometabolic Health Initiative to study the prevalence of neurological disorders in adults with pre-clinical and clinical obesity using the NIH All of US Dataset.

Welcome
to our programs

MS Epidemiology

- [Molly Ferencz](#)

PhD Epidemiology

- [Devjani Chowdhury](#)
- [Bethany Khol](#)
- [Christian Loszewski](#)
- [Mrudula Nair](#)





PhD Student Award Recipient

The Department of Epidemiology and Biostatistics is proud to share that **Meredith Cahill** has been selected as a recipient of the Christopher D. Thornton Fellowship, an award established to support students in the Colleges of Human Medicine, Osteopathic Medicine, and Veterinary Medicine at Michigan State University.

Named in honor of Christopher D. Thornton—"a Spartan" deeply committed to advancing quality health—the fellowship was created so students can pursue their degrees "free from the debt load that so often accompanies these types of programs." The endowment reflects Thornton's belief in empowering future health leaders by removing financial barriers that limit opportunity and impact.

Fellowship recipients are chosen for their academic excellence, demonstrated leadership, and clear potential to make meaningful contributions not only within their professional fields, but to society more broadly. Meredith's academic excellence and commitment to advancing public health embody the spirit of this award and the legacy it honors.

Congratulations to Meredith and faculty mentor Dr. Claire Margerison on her selection for this award.



"The impact of physical demands and work hours on the risk of preterm birth among Black women."

Dr. Florence Kizza, (PhD Epidemiology 2025) is the first author. Other authors include department chair, Dr. Dawn Misra and faculty , Danielle Gartner, Candice Johnson, and Xiaoyu Liang. at CHM: Laurel Harduar-Murano

A recent publication led by **PhD student Harish Neelam** examines a community concern about the high burden of breast cancer and potential environmental exposures in rural northern Michigan. The study examined county-level use of 38 endocrine-disrupting pesticides across more than 2,400 U.S. counties and found modestly higher breast cancer incidence associated with pesticide use in rural counties, but not urban counties. This work illustrates how community-driven research, supported by student mentorship, can respond to concerns raised in rural communities and generate evidence to guide future research on environmental factors and cancer disparities. (PMID: 42223742)

Postdoctoral Research Fellow, Laura Drew, recently published a paper in Obstetrics and Gynecology demonstrating that drug overdose mortality during pregnancy or the first year postpartum increased over 60 percent between 2018 and 2023. This increase was driven by increasing fentanyl, psychostimulant, and polysubstance overdose deaths and was nearly double that of nonpregnant female individuals of reproductive age (Figure 1).

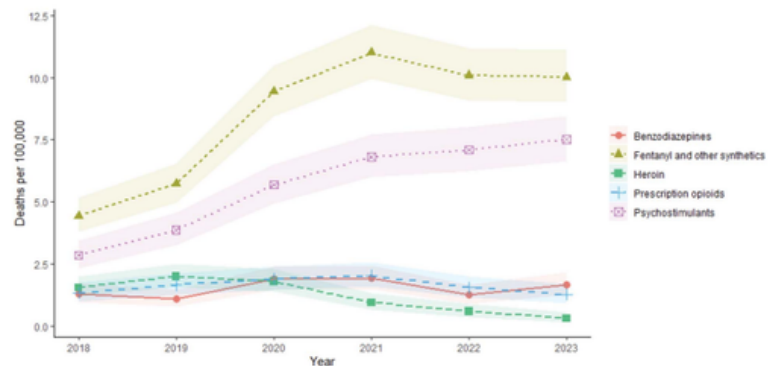


Fig. 1. Deaths during pregnancy or the postpartum period per 100,000 live births by drug type. The rates for each drug type are not mutually exclusive, because deaths that involved more than one type of drug were included in analyses. Drew, Drug Overdose Mortality, 2018–2023. *Obstet Gynecol* 2026.



More Faculty Research Updates



Dr. Mathew Reeves continues to work with his research collaborators to complete statistical analysis and submit manuscripts on 3 main projects. The first project is with MSU affiliated faculty member Dr Adam Oostema on the Grand Rapids campus. This project involves the analysis of data from emergency medical systems (EMS) and delivery of acute stroke care in Western Michigan. This work was funded by a MSU-Spectrum health Alliance grant. Second, is work with Dr Kori Zachrison at Yale University on an analysis of statewide data from California – this NIH-funded project is identifying networks of hospitals that participate in their own definable stroke systems of care, and finally, he works with Dr. Dawn Bravata at the Indianapolis Veterans Hospital on the analysis of a large cohort of elderly veterans (almost 100,000) that is part of a Learning Health Systems approach to post hospital transitional care funded by the VA.

The Margerison Research Group continues work examining social and behavioral causes of mortality during pregnancy and the postpartum period with a 5-year renewal of funding for their grant "Pregnancy-associated mortality and morbidity due to drugs, self-harm, and violence in the United States" (2R01HD102-319-05A1).

Funding Award

Dr. Claire Margerison has been selected to receive support through the Michigan State University Research Foundation (MSURF) Postdoctoral Scholars Program, housed within the Office of Research and Innovation (ORI). This award reflects MSU's strategic commitment to growing our research enterprise and to cultivating the next generation of scientific leaders – and Dr. Margerison's selection is a meaningful part of that effort.



Henry Ford + MSU Cardiometabolic Health Research Symposium

Several **department faculty and students** attended the inaugural Henry Ford + MSU Cardiometabolic Health Research Symposium on September 25, which brought together researchers, clinicians, trainees, and health care professionals from both institutions committed to advancing cardiometabolic health research. Faculty in attendance included Mat Reeves, Jean Kerver, and Allison Kuipers, along with students Tamana Afroj, Guanqi Lu, Cody Makinson, Harish Neelam, Elizabeth McMahon, and Nabasmita Talukdar.

Dr. Yaqun Yuan Receives MADRC Early Career Investigator Fellowship

The Department is pleased to share that Dr. Yaqun Yuan has been selected for the Michigan Alzheimer's Disease Research Center (MADRC) Research Education Component (REC) Early Career Investigator Fellowship Program. The fellowship, funded by the NIH/NIA through the MADRC, will support her project on chemosensory testing and mild cognitive impairment from July 2026 through June 2028.

The REC program provides early-career investigators with education in contemporary dementia research and mentoring in developing competitive grant applications. Dr. Honglei Chen from our department and Dr. Irving Vega from the Department of Translational Neuroscience will serve on her MSU mentor team.





• Faculty Spotlight Dr. Yaqun Yuan

- **Current Hometown:** East Lansing, MI
- **Born and Raised:** Changzhi, Shanxi Province, China
- **Favorite F1 Driver:** Max Verstappen
- **Favorite Color:** Navy Blue



• Student Spotlight Bethany Khol

- **Degree in Progress:** PhD in Epidemiology
- **Hometown:** Dewitt, MI
- **Favorite Color:** Purple-blue
- **Research Focus:** Science communication and infectious disease

Yaqun Yuan

Why Formula 1 racing?

So many factors shape each race, including car development, strategy, weather, and driver performance, which keeps it exciting to follow. I also admire the drivers' mentality, as they never give up until the last moment and seize every opportunity to win.

What do you like to do in your free time?

I play badminton with the MSU Badminton Club. Feel free to join me if you are also interested!

The most helpful advice you have received?

You don't have to wait until you feel better to start. Taking action will make you feel better.

Bethany Khol

Favorite Movie?

Project Hail Mary

What do you enjoy doing in your spare time?

Puzzles, Crafts, Writing.

What inspired your interest in pursuing your degree?

I learned about the field of epidemiology during the COVID-19 pandemic, which sparked my interest in pursuing epidemiology.

Why did you choose to study at MSU?

I liked the small department size and felt that I would find good instructors and mentors here.



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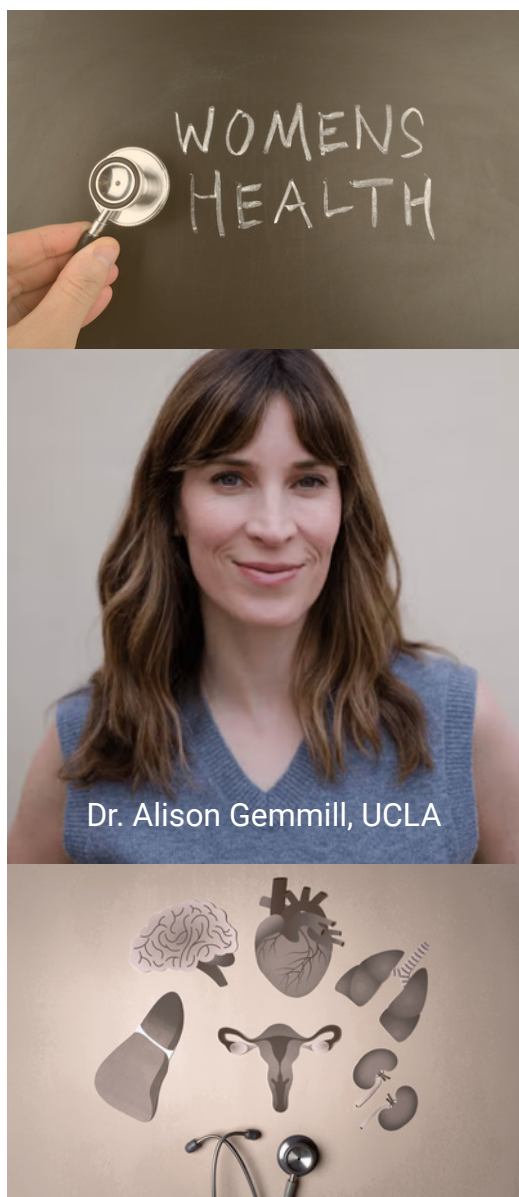
Third annual "Claudia Holzman Seminar in Women's and Reproductive Health" set for October 22

"Reproductive Health in Context: How Policy Environments Shape Fertility, Pregnancy, and Population Health"

Dr. Alison Gemmill is an Associate Professor of Epidemiology at the UCLA School of Public Health and a nationally recognized expert in perinatal epidemiology and fertility. Her research leverages large-scale data and natural experiments to understand how structural and political determinants—such as policies, economic shocks, and social stressors—shape maternal, infant, and reproductive health outcomes, including preterm birth, fetal loss, and maternal complications. She is currently co-PI of an NIH-funded study evaluating the fertility, maternal health, and infant health consequences of the Supreme Court's *Dobbs v. Jackson Women's Health Organization* decision, which overturned decades of constitutional protection for abortion rights.

3:00 pm | Patenge Room | C102 Fee Hall

The Department hosts this named seminar each year to feature an exemplary scholar in women's and reproductive health in honor of Dr. Claudia Holzman's important and lasting impacts on both the science and career development of scholars in this field.



Dr. Alison Gemmill, UCLA



You're invited to use the library for study, group work, or a peaceful break.

Following the [April Open House](#), the Nigel Paneth Epidemiology Library and Reading Room is now officially open for use. Department Faculty and students are welcome to access the space.

Please note that all books must remain in the library, and food or drink is not permitted. The room will remain closed and locked when not in use. For access, please contact Mark Watrich.





Dr. Vanderziel, without Sammy, will be presenting December 3 in the West Conference room at 2:00 p.m.

Alyssa Vanderziel (PhD Epidemiology 2022) is an Assistant Scientist in the Center for Healthcare Improvement (CHI) at Henry Ford Health (HFH). Dr. Vanderziel was awarded a NIH/NIDA K01 centered on addressing prenatal cannabis use. During the award period, she will establish a steering committee of individuals with lived experience using cannabis in pregnancy to co-design a behavioral intervention, followed by an open trial and pilot randomized controlled trial to assess intervention feasibility.

In addition to Dr. Vanderziel's niche program of research, she has worked on a multitude of studies spanning several topics areas. A few exciting areas of research include alcohol and cannabis use among metabolic and bariatric surgery patients; integrated care (addiction medicine, obstetrics, and primary care) among perinatal patients with substance use disorder; and delay discounting interventions among parents in recovery. Building on her quantitative skillset (thanks, EpiBio!!), Dr. Vanderziel has added qualitative research and implementation science to her repertoire. She and colleagues were recently awarded a Department of Defense grant to implement a new medical device, developed by her collaborators, to improve osteoporosis screening rates in the health system.

Moreover, Dr. Vanderziel enjoys mentoring students and is especially passionate about a group of high school scholars she mentors each year through Henry Ford's RYSE MED program. In addition, Dr. Vanderziel provides mentorship to medical students and postdoc fellows in CHI's T32 program.

When not at work, Dr. Vanderziel loves to spend time with her family. She also enjoys hiking with her partner, and heads out west to Utah or Arizona each Fall – it has become an amazing tradition! Additionally, Dr. Vanderziel is dedicated to her gym/strength training routine and really enjoys the sense of community. Finally, the love her life, Sammy (golden retriever) is an absolute joy and an exceptional companion!



Samantha Bauer, (PhD Epidemiology 2019), was selected as a recipient of the 2026 Wayne State University School of Medicine College Teaching Award for her commitment to excellence in teaching. As an Assistant Professor in the Department of Family Medicine and Public Health Sciences, Samantha teaches graduate MPH courses in Biostatistics and Health Data Analytics. In her teaching, she strives to make statistics approachable and meaningful by helping students move beyond simply running analyses to understanding what their results mean and how they can be used to answer real-world public health questions. She especially enjoys helping students build confidence working with data and develop skills they can carry into their own research and practice. Importantly, Samantha is motivated by the opportunity to pay forward the thoughtful and supportive education and mentorship she has received from faculty in MSU's Department of Epidemiology and Biostatistics.



ALUMNI update

Michael Yeboah, right (MS Epidemiology 2025), has been accepted into the PhD program in Applied Health Sciences at Augusta University, where he will study with a full scholarship.

His thesis work has been submitted as a manuscript and is currently under review: Healthy Lifestyle Characteristics in Pregnancy: Population-Representative Estimates from a Statewide Probability-Based Cohort. Yeboah M, Najafkouchak A, Kerver JM. Under review at American Journal of Preventive Medicine Focus (submitted 8/11/2026).



A well deserved honor for Dr. Joseph Gardiner

Congratulations to Emeritus University Distinguished Professor of Epidemiology and Biostatistics, Dr. Joseph Gardiner who is the recipient of the College of Human Medicine Lester J. Evans, MD, Distinguished Service Award.



About the award, from Supratik Rayamajhi, Interim Dean, College of Human Medicine.

“This award recognizes an individual who has made major, enduring contributions to the development and advancement of the college. This award honors service and leadership of exceptional breadth and lasting impact on the college and is chosen by the dean. The awards process enables us to acknowledge how fortunate and proud we are of the contributions made by individuals such as yourself.”

A well-deserved honor for someone who embodies class, kindness, and genuine character.



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