HPSS Newsletter

Summer 2025

Greetings from HPSS Chair

Mousumi Banerjee (mousumib@umich.edu)


Mousumi Banerjee

Dear colleagues and friends,

Welcome to the Summer 2025 issue of the HPSS newsletter! I hope this message finds you well and enjoying a restful and inspiring summer. To me, summer is about ice cream socials, laughter, the smell of jasmine from the patio garden, a favorite book, and traveling. Earlier this summer, I had a once-in-a-lifetime opportunity to travel to Nepal on a global public health assignment and get an up-close view of Mt. Everest. No, I did not trek. I wish I had that kind of physical fitness! Instead, I went on a helicopter, landed on Kala Patthar (elevation 18,519 ft), and started feeling hypoxic in about six minutes. I was very scared, yet happy because I believe doing one thing every day that scares us, be it big or small, can be good in the long run. As we move through this turbulent year, I continue to be inspired by the strength and resilience of our community – statisticians, data scientists, public health professionals, and policy analysts taking scary things one day at a time, yet all working together to improve population health through evidence and innovation. I am especially proud of our efforts to foster mentorship, amplify early-career voices, and spotlight the role of data in driving equitable health outcomes.

I hope to see many of you in Nashville, the Music City, in August for JSM 2025. We have a wonderful program in store for you, thanks to the tremendous work of our Program Chair, Dr. Fatema Shafie Khorasani, and Program Chair-Elect, Dr. Zheyu Wang. Don't miss our (off-site) mixer on Monday, August 4, which will be a joint event with the Mental Health Statistics Section and the Statistics and Data Science in Aging Interest Group. On Wednesday, August 6, our speaker with lunch will feature William Dupont (Vanderbilt). Further program details are provided on the next page.

As always, there are many opportunities to volunteer with HPSS, including serving on committees, reviewing student papers for awards, and participating in planning and organizing the next ICHPS meeting, which will be held in 2027. Please email me if you are interested in volunteering! Finally, I would like to congratulate those who were elected in the last ASA election, as well as those who ran for an elected position. We welcome Theresa Kim (NIH) as the 2026 HPSS Chair-Elect and Lane Burgette (RAND) as the 2026-2028 Council of Sections Representative. Congratulations, Theresa and Lane! We also extend a warm welcome to Jason Roy (Rutgers) and Mingyang Shan (Eli Lilly) as appointed members to our newly formed Fundraising Committee. Finally, we are excited to welcome our ICHPS 2027 Co-Chairs, Rebecca Hubbard (Brown) and Andrew Spieker (Vanderbilt).

Please don't hesitate to reach out with ideas, feedback, or just to connect. I am deeply grateful to be part of this vibrant community and excited about all that we can accomplish together. Have a wonderful summer!

Mousumi Banerjee
2025 Chair, HPSS

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2025 HPSS Executive Committee

Chair: Mousumi Banerjee
Chair-Elect: Jason Brinkley
Past-Chair: Layla Parast
Secretary: Kuan Liu
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Council of Sections Rep: James O'Malley
Program Chair: Fatema Shafie Khorassani
Program Chair-Elect: Zheyu Wang
Fundraising Committee: Jason Roy & Mingyang Shan
ICHPS 2027 Co-Chairs: Rebecca Hubbard & Andrew Spieker
Publications: Robert Tumasian III

JSM 2025
August 2-7
Nashville, Tennessee


Fatema Shafie Khorassani


Zheyu Wang

Program Chair: Fatema Shafie Khorassani (fshafie@bu.edu)
Program Chair-Elect: Zheyu Wang (wangzy@jhu.edu)

It is our pleasure to announce a full list of HPSS-sponsored activities including invited and contributed sessions, student paper competition winners, a lunchtime speaker, and our famous mixer held jointly by HPSS, the Mental Health Statistics Section (MHSS), and the Statistics and Data Science in Aging (SDSA) Interest Group. You can also come visit us at Table #5 in the Expo. We hope to see you!

HPSS-sponsored Invited Sessions:

1. Accessible Causal Inference (Monday, 8/4)
2. AI for AD/ADRD Care: Essentials to Improve Learning Health Systems' Managing of Aging People (Monday, 8/4)
3. Building a Better Healthcare System for EHR Insights: Reflections on Enhancing Practice and Policy (Wednesday, 8/6)

HPSS-sponsored Topic-Contributed Sessions:

1. Vaccine Safety Detection using Real World Data (Sunday, 8/3)
2. HPSS Student Paper Award Presentations (Tuesday, 8/5)

HPSS-sponsored Contributed Sessions:

1. Advances in Causal Inference Methodology (Sunday, 8/3)
2. HPSS Poster Presentations (Monday, 8/4)
3. Methods for Data from Multiple Sources: Transfer Learning, Data Fusion and More (Monday, 8/4)
4. Rethinking Statistical Paradigms and Applications to Health Disparities (Tuesday, 8/5)

We are happy to have William Dupont, Professor of Biostatistics and Healthy Policy and Director of the Nashville Breast Cohort Study at Vanderbilt University School of Medicine, as our **Lunchtime Speaker** on August 6, 12:30 pm – 1:50 pm, to discuss accessibility to buprenorphine treatment for opioid use disorder (OUD) in addicted pregnant women and the impact on pregnancy outcomes.

The **HPSS/MHSS/SDSA Joint Mixer** will be held on August 4, 6:00 pm – 8:00 pm, at Sixty Vines (5055 Broadway Suite 3200, Nashville, TN 37203) and will include the **HPSS Student Paper Award Ceremony** (winners are listed below on page 4). Please come join us for fun, food, and socializing!

International Conference on Health Policy Statistics
Statistical Innovation to Improve Health Equity
January 6–8, 2025 • San Diego, California

ICHPS 2025 Recap

Co-Chairs:
Lane Burgette (burgette@rand.org)
Beth Ann Griffin (bethg@rand.org)


Lane Burgette


Beth Ann Griffin

Theme: "Statistical Innovation to Improve Health Equity"

The International Conference on Health Policy Statistics (ICHPS) was held January 6-8, 2025, in San Diego, CA. The meeting brought together practitioners, methodologists, health service researchers, health economists, and policy analysts from the US, Canada, China, Europe, and Israel to exchange and build upon ideas to advance health policy and improve health equity from a statistical perspective.

ICHPS 2025 included exceptional speakers covering a broad range of important topics (link to program). The meeting started with a welcome from 2024 ASA President Madhumita (Bonnie) Ghosh-Dastidar (RAND), followed by an opening keynote from Whitney Robinson (Duke) on common mistakes (and solutions) that researchers can make in causal inference. As the discussant, Susan Paddock (NORC) encouraged attendees to continue engaging in efforts to ensure that data is measured properly and addressing well-specified problems using high-quality research standards.

Sherri Rose (Stanford) delivered the closing keynote, discussing the latest issues on the ethical use of artificial intelligence. As the discussant, Elizabeth Stuart (Hopkins) reflected on how the role of methodologists is changing and how we need to identify ways to ensure that people understand the value that statisticians bring to research.

Other special programming included:

- "Meet the Editors" session with editors of medical and applied statistics journals: Elizabeth Stuart (Hopkins), Layla Parast (UT – Austin), Nandita Mitra (UPenn), and Beth Ann Griffin (RAND)
- Town hall with Elena Martinez and Aladdin Shadyab (UCSD)
- 15 invited sessions on topics such as complex study and survey design and measurement error
- 11 training workshops on topics such as policy intervention design/evaluation and record linkage


From left: Susan Paddock, Whitney Robinson, Madhumita (Bonnie) Ghosh-Dastidar, and Beth Ann Griffin (opening keynote)

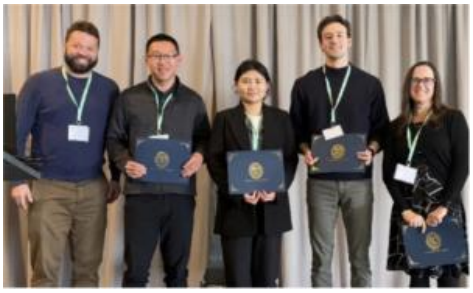
From left: Lane Burgette, Andy Shen, Peijin Wang, Gary Hettinger, and Beth Ann Griffin (student travel award ceremony)

Photo credit: Staci Hepler and Sarah Lotspeich (Wake Forest)

A big congratulations to all the winners of the student travel awards, Mid-Career Award (Miguel Marino [OHSU] and José Zubizarreta [Harvard]), and Long-Term Excellence Award (Lisa Lix [UM – Canada])!

A huge shout out to the ICHPS 2025 Co-Chairs, Lane Burgette and Beth Ann Griffin (RAND), for putting together a great program! For additional information about ICHPS 2025, see this article in Amstat News.

Congratulations to the 2025 HPSS Student Paper Awardees!

A big thank you to all the students who participated in the HPSS Student Paper Competition this year, and to the many HPSS members who reviewed the submissions. The 2025 winners are listed below (in alphabetical order by last name):

Durbadal Ghosh, Florida State University, “Analysis of spatially clustered survival data with unobserved covariates using SBART”

Chanhwa Lee, University of North Carolina – Chapel Hill, “Nonparametric causal survival analysis with clustered interference”

Namhwa Lee, University of California – Riverside, “A joint modeling approach to treatment effects estimation with unmeasured confounders”

Chen Liu, University of Pittsburgh, “Heterogeneous causal mediation analysis with Bayesian additive regression trees”

Justin Weltz, Duke University, “Reinforcement learning for respondent-driven sampling”

Events & Meetings Dates

JSM 2025 – Joint Statistical Meetings
Nashville, TN. August 2-7, 2025.

RISW 2025 – Regulatory – Industry Statistics Workshop, ASA Biopharmaceutical (BIOP) Section
Rockville, MD. September 24-26, 2025.

WSDS 2025 – Women in Statistics and Data Science Conference
Cincinnati, OH. November 12-14, 2025.

ENAR 2026 – International Biometric Society – Eastern North American Region
Indianapolis, IN. March 15-18, 2026.

Announcements

Please consider getting involved with HPSS and attending JSM, including our mixer on August 4!

If you are interested in learning more about HPSS or would like to volunteer, please email Mousumi Banerjee (2025 HPSS Chair) at mousumib@umich.edu.

A summary of the objectives and functions of HPSS can be found in our Charter, which also includes an overview of our various officer roles.

We are currently seeking interest in the HPSS Publications Officer position for 2027-2028, with 2026 serving as a transition year.

The Role of Statistics in Health Policymaking

An Interview with Dr. Elizabeth Stuart (estuart@jhu.edu)

By Robert A. Tumasian III (ratumasian@gmail.com)


Elizabeth Stuart


Robert Tumasian

Statistics play a vital role in health policymaking by providing the evidence needed to make informed decisions that impact public health. Through the collection, analysis, and interpretation of data, statistics help policymakers to identify health trends, evaluate the effectiveness of interventions, and allocate resources appropriately. Reliable data and statistics support the development of policies that address urgent health concerns, improve healthcare quality, and enhance disease prevention efforts. By transforming complex health information into actionable insights, statistics ensure that policies are grounded in scientific evidence rather than assumptions. Ultimately, statistics contribute to building healthier communities and stronger healthcare systems. To gain further perspectives, we are thrilled to interview Dr. Elizabeth (Liz) Stuart from Johns Hopkins University.

Robert: Could you start off by telling us a little bit about yourself and your day-to-day work at Hopkins? What do you enjoy most about your job?

Liz: I'm a Professor and Chair of the Department of Biostatistics at Hopkins, with joint appointments in Mental Health and Health Policy and Management. As indicated by that combination, most of my work is in statistical methods for mental health and substance use research, and a lot of policy evaluation across a variety of areas, including gun violence, abortion, and substance use. I am also the evidence lead for the Bloomberg American Health Initiative, which has a focus on improving the health of individuals in the US through close connection with public health practice, and a co-founder of the Center for Mental Health Addiction Policy with Colleen Barry. Of course, now in my Chair role I spend a good chunk of my time on administrative work, so my overall time is maybe 40% research (combination of methodological work and collaborative applications), 40% administration, and 20% teaching. I would say what I love is the sense of mission at the School – it's a place full of smart and collegial people looking to do good science to make a difference in the world. That ethos leads to a wonderful work environment, where people work hard and expect high quality work but also treat each other with respect and kindness.

Robert: What opportunities does Johns Hopkins offer for students or others who are interested in health policy?

Liz: It's a great place for health policy and (bio)statistics! Our Department of Health Policy and Management has over 100 faculty and Biostatistics has about 45, with interesting work across a whole range of methodological and applied areas. There are also a number of interesting health policy relevant centers, including the Center for Mental Health and Addiction Policy, the Bloomberg American Health Initiative, and the Center for Gun Violence Solutions. Hopkins also recently built a new building near Capitol Hill in Washington, DC, the Bloomberg Center (in what used to be the Newseum building), with great opportunities for engagement with government, policymakers, and other relevant groups. Being close to DC is also generally useful in terms of connections to federal staff and policymakers, and with many convenings and meetings happening there, whether at NIH, the National Academies, FDA, or elsewhere. There is also just a huge amount of research going on in related areas and so many interesting studies and methodological questions that haven't been answered. It's hard to imagine a better place for work at the intersection of health policy and (bio)statistics than Hopkins!

Robert: How would you describe the role of statistics in shaping and evaluating health policies?

Liz: There are lots of ways statistics can be used in health policy. Some of my first work at Mathematica (before I moved to Hopkins) was microsimulation modeling to understand the coverage and financial implications of different policy choices on things like SNAP and other eligibility-based programs. In other cases, statisticians might be helping design and analyze surveys to understand how policies are being implemented, or public sentiment regarding policies. They also might be helping design and analyze

randomized trials of new innovations or non-experimental studies of existing programs (e.g., the Centers for Medicare & Medicaid Services run some demonstration projects that have complex statistical needs), while some support research studies that directly inform policy.

Robert: From your experience, can you give me an example where statistical analyses had a significant influence on a health policy decision?

Liz: I think it's often hard to see a direct link between a given study and policy decisions, and especially given how hard policy evaluation is, in some ways I would hope that it's a body of evidence that would inform policy rather than one individual study. (And as we know, there are also many other factors that go into policymaking!). The most explicit example that I have is a case where a specific gun violence study I worked on (led by my post-doc at the time, Kara Rudolph, and done in close collaboration with my colleague Daniel Webster who is an expert in gun violence) was quoted by President Obama in an executive order about gun control; we had found that Connecticut implementing a permit-to-purchase law reduced firearm homicides by 40%, and that was quoted as part of the background and motivation for the proposed policies! However, given broader challenges with federal firearm regulations, I'm not sure much actually came of it, but we were at least directly informing the conversation.

Robert: What are some effective strategies to communicate complex statistical results to non-expert stakeholders, such as policymakers and the general public?

Liz: Great question! I think about this a lot. I think one piece is transparency of methods and results, and potentially of using methods that we trust and that are easy to explain rather than using the newest, fanciest approach (assuming we trust the findings using the more basic approach). This may be controversial to say, but sometimes what is valued by the academic statistical community is not what is needed for clear communication with decisionmakers or the general public, and I would love to see more attention to things like transparency of methods and clear diagnostics. The other note I would say on this is that I also lean very heavily on my substantive expert collaborators. I am not an expert in abortion, or gun violence, or opioids; I have learned about these topics from deep and long-term collaborations, but I view them as the people with the broader lens on the content area and really the leads in terms of communication of the big picture findings and implications.

Robert: From your perspective, what are some of the most common and reliable sources of health data for policymakers today?

Liz: This is a tough one! Normally, I would say sources like the large federal data sources, whether it's Medicare or Medicaid claims, CDC surveillance data, or rigorous and nationally representative surveys such as the National Health Interview Survey. However, with budget challenges and other threats to these programs, it's hard to know whether we'll be able to continue using these data sources reliably. There are other useful surveys, such as those run by Pew or NORC, but it is useful to have the federal surveys as true population benchmarks, and also to ensure access over the long-term. Other key data sources are private insurance claims (sometimes aggregated by various groups, although that data can be expensive to access), electronic health records (including from networks like OHDSI and PCORnet), or sources such as the AllOfUs resource. Each of them has its strengths and limitations, and one note I would say is that it is important to deeply understand any dataset you use – where it came from, what the variables mean, what the challenges are, etc. I have worked on many examples where naively using the data could have led to inappropriate conclusions, but working with people who really knew the data, we were able to make sense of it.

Robert: What ethical considerations arise when using data and statistical techniques to inform health policy decisions?

Liz: There are a lot of considerations here, including aspects such as attention to groups that may be underrepresented, or not represented at all, in data sources. In fact, a chunk of my methodological work has been on methods to understand and improve the representativeness (or lack thereof) of individuals in randomized trials. But here, I'll focus mostly on transparency and not letting the finding drive the design and analysis. One thing I always appreciated at Mathematica, and now at Hopkins, was the

underlying desire for true research – not wanting the results to come out one way or another but wanting to discover the "truth" (as much as we can in any given scientific study). And that's how I knew I wanted to be a statistician – that in a sense I care more about the methods used to answer a question than the answer itself. I think we need to have that type of approach – recognizing our implicit or underlying biases, but also trying to counter them, which can include setting up studies in ways that help minimize the potential for getting the answer we might expect (or hope). This is captured well in a quote from Donald Rubin that I really like (Rubin, 2001): "If we could try hundreds of designs and for each see the resultant answer, we could […] choose the design that generated the answer we wanted! The lack of availability of outcome data when designing experiments is a tremendous stimulus for 'honesty' in experiments, and can be in well-designed observational studies as well." This fits into broader themes of pre-specification of analysis plans and associated topics. That said, and perhaps for another time, but I will also note that pre-specification of analysis plans is often more complex in non-experimental studies than in experiments, and that sometimes it is important to look at the data somewhat to understand which analyses are feasible or appropriate. I think this general topic needs more attention but for now, I will highlight a recent paper by Dylan Small, where he talks through some of these points.

Robert: How is the increasing surge of big data, machine learning, and artificial intelligence impacting the use of statistics in health policy today?

Liz: Another good question! There is clearly a lot of potential use of machine learning and AI in health policy statistics. For example, we are using large language models right now to pull out more information from the clinical notes in the Hopkins electronic health record system, allowing us to have better information on the symptoms of people with depression. This will then allow us to more easily combine information from randomized trials, which typically use symptom scores as outcomes, with data from the electronic health record system, which otherwise normally just has mental health outcomes such as services received. I have also used machine learning methods such as generalized boosted models to estimate propensity scores, as they are a particularly useful and flexible approach. The thing that worries me is that I think it will be easy for people to simply "throw" a big machine learning or AI model at a dataset and then have results come out. We will still need researchers who can think about things such as the quality of the data, who is in (and not in) the data, how are variables measured, what is the uncertainty in the result, etc. I really encourage all of us to find ways to contribute to the use of AI in research and the evaluation of AI tools in practice, where I think we have a lot to contribute!

Robert: What improvements would you like to see in the way that statistics are integrated into the health policymaking process?

Liz: This is tough to tackle, especially now when it feels like there is a lack of prioritization of data and evidence, but I am trying to stay true to my own values and trust that solid data and evidence does matter, and will make a difference. Figuring out what does – and doesn't – work is an incredibly important task. And I'll also pivot to a slightly different question and answer, which is that I hope that we can continue to foster truly interdisciplinary work, where statisticians, and statistics, are highly valued and seen as core members of research teams, working together with substantive experts. Some of the best studies I have worked on are mixed methods studies that have combined qualitative and quantitative work, and I think that type of work will continue to be extremely important (including sometimes, sadly, to help explain null findings). Here's one paper where we talked about that type of design, if you're curious. We as statisticians should continue to be engaged in these conversations and learn how to talk and work with people from a variety of fields. We have a lot to offer, with our focus on data, sampling, uncertainty assessment, and much more. Let's all work together to help make sure we keep our seat at the table in health policy discussions!